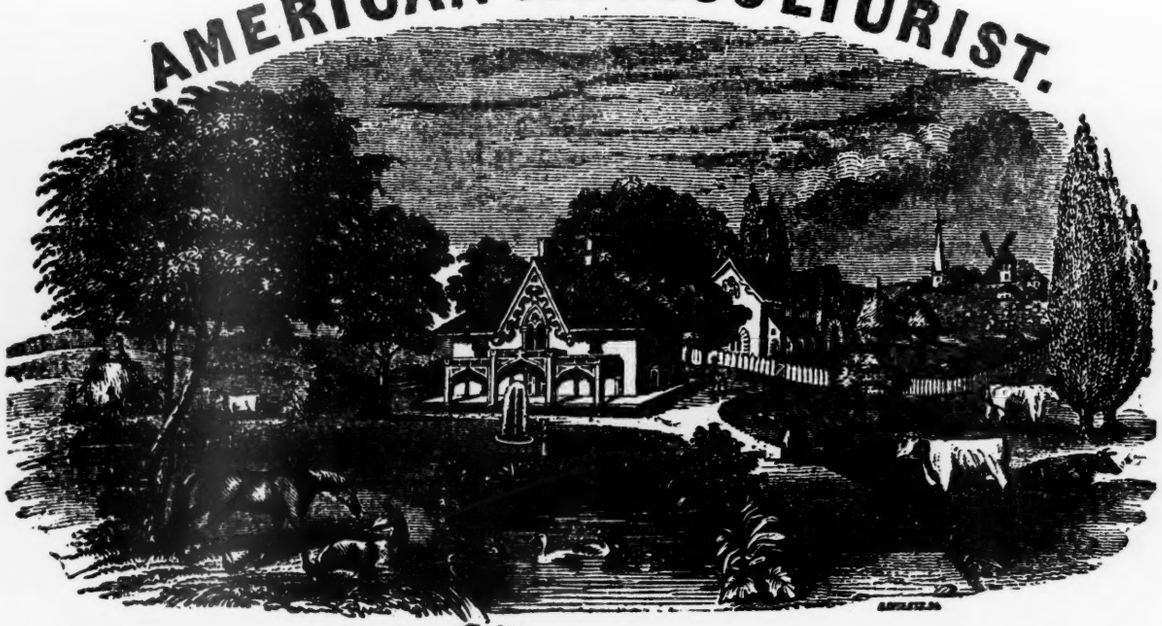
AMERICAN AGRICULTURIST.



Agriculture is the most healthful, the most useful, and the most noble employment of man.—WASHINGTON.

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A. B. ALLEN, Editor. SAXTON & MILES, Publishers, 205 Broadway.

TO OUR SUBSCRIBERS.

HERE we are, gentle reader, at the end of our fourth campaign, and we trust by this time that you like us hugely, and are prepared to furnish the *sinews of war*—which, by the way, means nothing more nor less than cash, in the shape of subscriptions—for the fifth regular sortie against the agricultural enemy, Colonel Ignorance and Captain Prejudice. They are doughty knights, truly, or in more common parlance, *hard customers;* but if we can only succeed in once conquering them, we shall then do well enough, and be able to sit down under the shade of our apple and peach orchards, and enjoy the fruits of our labors.

Agricultural products are now bringing capital prices—indeed, the farmer, to our great delight, has at length got the upper hand again; and while he is filling his stout leather purse with the proceeds of his cattle and crops, it will be a great pity if he does not set apart a small sum for an agricultural journal, to store his mind with new ideas, and enable him to improve his ancient craft. Now, is there anything better adapted to this purpose than the American Agriculturist? We opine not. It may not be very modest in us to say so; nevertheless, we cannot help insinuating in the most delicate manner imaginable, that our periodical is out and out the very best friend and instructor that the farmer, his wife, and all his little ones, can possibly obtain in their affairs; and it should ever be the first and last book, after the Bible, for them to read. Why, only look at it. We will say nothing of the pages and pages of rich solid practical matter, for the hardy husbandman, which runs through all the calendar months from January to December inclusive; but merely glance at the Ladies' and Boys' Departments. Then candidly tell us, gentle reader, did any one ever give you such an admirable treat as the first to the last of these papers, from Polly Dickson to Farmers' Wives. Our lady contributors, though few in number, are a host in talent, amiability, good sound sense, beauty, and discretion. We expect a large addition to them, in the coming volume; and this we will frankly say, that any man may consider himself highly flattered by being associated in their company. Then, as to the boys, what sage advice for them, from the redoubtable Sambo to Mr. and Mrs. Thrift and Unthrift, and all the little Thrifts and Unthrifts! Why, boys, if some of you don't become Presidents of this great Republic one of these days, we shall be exceedingly disappointed. Our first President—the immortal Washington—the greatest and best man that ever lived, was a farmer; all the rest have been lawyers—no offence to the profession—and far, very far indeed, his inferiors. We hope when the boys who read this paper get grown, and can go to the polls, that *they will elect a* FARMER for their President. Let the plow rule is our motto.

☞The first number of Volume Fifth of the Agriculturist will be issued promptly on the 1st of January, 1846, with embellishments and matter such as will commend it more and more to the farming public. The work is well established—has a good and constantly increasing circulation—and we have the means now of pushing it more extensively than heretofore, in every quarter. We shall take care to do this the present year to the utmost, fully believing at the end of it, we can show as large a subscription list as any other paper of a similar kind in the United States. There is one superiority about our journal, and that is, it has nothing to do with *cliques* or *parties*, and is the organ of no particular Society. It stands FREE and INDEPENDENT—it is consecrated to the general good of the great agricultural class of the country—and thus do we ever intend to keep it

THE POTATO ROT.

We are asked to insert some articles on the present alarming disease of the potato. We respectfully decline doing any more than we have in the present and past volumes, till something more positive is known about the disease, be it murrain, cholera, or simple rot. The agricultural journals of the day, especially in Europe, are teeming with articles on this subject; we have read them nearly all, and have not got a single new idea, more than is already published in this periodical, at pages 350 and 354 of the last, and page 110 of the present volume. We are determined not to bore our readers with long prosy articles which teach them nothing new. The whole thing may be summed up in a few words, and these are—that the disease is probably a fungus. The best remedies are salt, lime, and charcoal. We recommend procuring new seedlings, and be very careful not to let them get mixed with old ones. Plant next spring on sod ground, without other manures than plaster, salt, lime, charcoal, or ashes. A good sod, with the addition of the other materials, will be sufficiently rich to raise a large crop; and depend upon it, if the seed be of a good variety, and it escape the rot, the crop will be sweet, mealy, and highly nutritious—the best for animals as well as man. Our readers will do us a great favor by giving us facts on this interesting subject, free from speculation.

A CHAPTER ON APPLES.

The great advantage of fruit raising to the farmer, has been often commended through our columns. It is not our intention to enlarge upon its general merits at present, but to confine what we have to say to the subject of apples alone.

The apple is, beyond all question, the king of fruits; as wheat and the potato are of grain and roots. In some one or more of its varieties, it keeps throughout the three hundred and sixty-five days of the year; and long after the earliest genitings and sweet-bough with their glossy sides and fragrant odor, are offered in the market, the piles of smooth greenings and pippins, and rough golden-coated russets, with all the firmness and substantial merits of veterans of '76, are tempting the eye and olfactories of every passer, by their plump and but just matured perfections. It is to this quality of enduringness, which is, with some exceptions, common to all seasons and all climes, that much of the merits of the apple are due. But much more it may justly claim, in its luscious flavor, and healthful influences; and its peculiar adaptation to so large and varied uses. Besides the thousand-and-one varieties of dishes of which it forms the sole, or principal, or a subordinate part, in the economy of the skilful housewife, it contributes greatly towards the interest of the farmer by the profits from its sale, and its use as food for his stock.

The profit from feeding the surplus of an extensive orchard of fine fruit to stock (for fine fruit is as much better for animals as it is for their owners), has become an item of careful estimate, since the nearly general abandonment of the wasteful sottish system of cider-making. It was the rule, we believe, that 8 to 12 bushels of apples would make one barrel of cider; and 8 to 12 barrels of cider, one barrel of cider brandy. The former was made to the halves, while, perhaps, 2 gallons of the latter might be returned as a full equivalent for a barrel of the former. Two gallons of miserable liquid poison, within less than a generation since, was the product of 8 to 12 bushels of apples! Let us see how the case stands by the touchstone of figures—Eight bushels of good apples (and it is cheaper raising good apples than poor), are worth in an average of seasons, 37½ cents per bushel, in the orchard, $3 for the whole; while the 2 gallons of brandy would be worth about the price of whiskey, say 50 cents—difference in favor of selling the apples, or using them for some appropriate purpose, six to one. Verily the present age has improved some in pocket, as well as morals.

The value of apples, however, for feeding to stock is not equal to that for selling, whenever a good market is within reach. The early droppings from the trees should be invariably fed to stock; as besides their general worthlessness for other purposes, from their immaturity, they frequently contain worms, which their consumption by stock effectually destroys. The most economical way of providing for this, is to allow swine to run at large in sufficient numbers to consume all the first droppings. These, with the offal of the dairy, and a good clover pasture, with a trifle of meal, thoroughly soured with the whey or slops, will put *a good breed* of hogs into fine condition, *if kept out of the road*, by the time peas, potatoes, and corn, are sufficiently matured to begin their fall feeding. If there should be any surplus of apples, beyond what may be more profitably disposed of, these may be fed to the fattening porkers, either raw or cooked, with certain advantage. The exact equivalent in grain or roots for pork or beef making, has not been ascertained with sufficient accuracy to be here stated, but that they stand high in fattening properties is beyond a doubt; while the quality of meat they produce is of the highest flavor.

Sheep may be substituted for swine in ranging through the orchard and picking up the diseased and immatured fruit. They will not hurt store sheep either in flesh or fleece, but they are more particularly profitable for such as are intended for mutton. A run in the orchard is an excellent preparation for heavier feed at a later period in the season, and richer or more highly flavored mutton cannot be produced than is afforded from such as have this food continued to them, till ready for the shambles.

Milch Cows thrive on them exceedingly, though they should never be allowed to run among the trees, from their injuring the limbs, and their tendency to choking in taking them from an elevated position. The milk from cows so fed is noted for its richness and delicious flavor. For working cattle and such as are intended for beef, they are nearly as valuable.

Horses are also exceedingly fond of apples, and few kinds of stock are more benefited by their use. They are a full substitute for grain, with hay, when not too hardly used, and it has been found from long experience and careful observation, that their health is better when so fed; their coat is smoother and more glossy; and that they are equally spirited.

The quality of apples has much to do with their value; though probably not more than that of roots and grain. Such kinds should be selected for feeding, if that be the object, which are, as a general rule, the most profitable for sale; as they will be found to combine the best flavor with the most substance. Sour apples have been proved from careful experi-

ments, to be equally nutritious for stock as sweet, but it must be remembered, that they soon set the teeth on edge, and cannot be continuously fed in considerable quantities, with advantage to the thrift of animals. Boiling would remedy this objection, but it is more easily obviated by alternating sweet with sour; or if an orchard is to be set out or grafted, expressly in reference to this object, sweet apples may almost entirely predominate.

Poultry comes into the long list of consumers of the apple orchard; and no less good does it do them, than the other tenants of the farm. Of apples, of a soft, delicate, delicious pulp, we have had more than a peck per day consumed by a small flock of hens and chickens. Indeed, they would resort to the tree for their breakfast, from its droppings over-night, in preference to their grain dishes. Turkeys, ducks, and geese, are equally fond of them. We opine, that excellent canvass-back ducks may be made from the spice apple; and perhaps pheasant and grouse, from the barn-yard fowls when their flesh is similarly flavored.

Some prejudice has been created against the use of apples for stock, from the fact, that when a hungry cow happened to break into an orchard and filled herself to repletion, a fever ensued, and her milk dried up. The same rule would hold good against allowing a horse a ration of grain, because one had died from an unstinted feed of corn. The true course is, to commence feeding in small quantities, and gradually increase the allowance till put on full rations.

If cider is made, as it ought to be to some extent, for vinegar, but not for use as a beverage, in any case; the pomace may be advantageously used for cattle, or sheep. Mixed with hay, this is nutritious and wholesome, and constitutes a most economical food. When the apple is fed to the larger animals, hay and grass should always accompany it; and when fed to hogs, fresh clover or grain should be added. When thus judiciously managed, we doubt if the production of roots for stock feeding, will compare in economy with that of raising apples for a similar purpose. It is true they are sometimes cut off by late frosts, and are not vegetables and grain equally liable to injury and disappointment of the husbandman? In conclusion, we can offer no better advice to our readers, than to urge them to plant as extensive orchards as they can manage to advantage, of the choicest fruits they can select; and whether intended as an investment of their money, as food for their families, or domestic animals, or as an inheritance for their heirs, they can make no more appropriate bestowment of their time and wealth.

FARM OF MR. STAATS.

During a brief ramble which we had the pleasure of making in Duchess county last summer, among others, we called upon Henry Staats, Esq., late President of the Duchess Co. Agricultural Society. Mr. S. was born to no inheritance, but has succeeded through his own industry in rearing up a large estate of about 2,000 acres. Most of this property is in Red Hook, and a good portion of it is what is termed "the flats;" a fine, light, alluvial soil, free from stone, easily cultivated, and of greater or less fertility, stretching from the foot of the Highlands at Fishkill up the river some 60 miles or more. Geologists suppose that these flats were formed by the deposites of the great lake which unquestionably formerly covered the Hudson valley, till, by some mighty convulsion of nature, the rocky barriers were torn asunder, and it found an outlet through the Highlands to the sea.

Our stay was so brief with Mr. S. that we had not the opportunity which we could have wished to go over his farms and take full note of his operations. His rotation is to plow up the sod, manure, and plant corn. Oats succeed, then wheat with a top dressing, and with this the land is seeded down with clover and timothy. Plaster was formerly beneficially used here to considerable extent, but does not seem to answer a good purpose now. We are of opinion that if the farmers would give their lands a good dressing of ashes for a few years, plow in green crops occasionally, carefully apply all their stable manure, and muck where it is to be had, plaster would then again be found of considerable advantage.

A Sheep Farm.—In the town of Milan, adjoining Red Hook, Mr. Staats has a farm of 150 acres, so broken and rough that it cannot be cultivated to any advantage. This he has turned into a sheep farm, and we are not sure that it does not thus pay him a better profit on its cost than the easily tilled flats. He commences by turning on a flock of 100 to 150 head about the 10th of April. As the feed comes forward he increases the flock till June, and in October begins to lessen it, and removes the last from the 10th to 20th December. In this way the hundred and fifty acres support an average of 400 sheep during four months of the year. Suppose that these sheep were yearling wethers of a *good mutton breed*, the growth and improvement on them would be at least one dollar per head (one of our friends in Putnam county last year realized over two dollars per head), which would be $400. Estimating the value of the land at $25 per acre, this would be a fraction over ten per cent. interest on the same, while it must be recollected that under this system of feeding the land is increasing in fertility.

We mean to repeat at least a thousand times, or till what we say has some effect upon our countrymen, that a pound of lean, tender, juicy mutton, can be raised for *half* the cost of the same quantity of fat pork; that it is infinitely healthier food, especially in the summer season; is more agreeable to the palate when one gets accustomed to it; and that those who eat it become more muscular, and can do more work with greater ease to themselves than those who eat fat pork. We know nothing more delicate than smoked mutton hams of the Southdown breed of sheep—venison itself is not superior. Sheep can be kept in fine growing order where other domestic animals will scarcely exist, and thousands of acres in this State, like this farm of Mr. Staats', under an enlightened system of sheep husbandry, may be made to pay a good interest, where now they are nearly dead property in the hands of their present owners.

What the Farmer cannot afford to do without.—This is an agricultural journal. The moment he drops that, he may expect to fall behindhand, at least in the knowledge of the age and all good improvements in agriculture. Can the farmer afford to do this? No, he cannot.

THE STABLE.—No. 6.

Our cut this month illustrates the method of pulleying the horse's tail. This is sometimes done without either docking or pricking (nicking, as it is always called in England, and sometimes in America), but never with any good result. If the pulley is to have any determinate effect, it must follow *pricking* in almost every case; although it will sometimes, with rare good docks, give the required set to the tail when it follows docking alone. If the dock be naturally carried pretty well up and be rather limber than stiff, it may be advisable to try pulleying after docking without pricking; if the tail be made without it, a deal of trouble will be saved both to man and beast. But this can never be with crooked or low set tails and strong docks; pricking with them is indispensable, and a good tail will never be made without it. The reason is this: the two under cords are as strong as the two upper ones; the under depress, and the upper raise the tail. In pricking, the under ones are cut, and the tail is healed while elevated; the cords never unite; thus the upper cords are left to exercise their raising power unobstructed. With an unpricked tail, the tail is brought down by the relaxation of the muscles attached to the upper cords, and the contraction of the muscles attached to the lower cords, added to the weight of the tail. In a pricked tail, the tail is brought down by the relaxation of the muscles of the upper cords and the weight alone. The tail is elevated by the relaxation of the muscles of the under cords and the contraction of those of the upper. When an elevated tail is desired, the severing of the under cords near the body leaves the muscles of elevation to act unopposed, and a good tail is secured. In nature, however, the under cords are quite as strong as the upper, and consequently act as strongly to depress the tail as do the upper ones to elevate, and the weight of the tail is added. Of course, most horses carry low tails; and every horse with a steep rump, without an exception. All horses are made for use; and yet but few are made with good tails. All persons admire good tails; and those who most loudly exclaim against docking and pricking as barbarous, are not less fond of a gaily carried tail than those who see and know the use and propriety of making tails. Many horses need only pricking to give them good tails; others require to have the tail docked as well as pricked. *Well bred* horses carry good tails naturally much oftener than ill-bred ones; indeed, ill-bred ones rarely carry good ones, and well-bred ones generally do. The thorough-bred horse is almost never seen to carry a bad tail; and it is a remark, doubtless true, that the Arabian never carries a bad tail. Hence with high-bred horses used for the road, it is rare to see a tail artificially set up, nature having done it. Ill-bred horses most generally have steep rumps and carry low-set tails; and with part-bred ones, good and bad, high and low tails will be found, even with like breeding. So much for tails in that view.

The reason why tails should be pricked is, that that they are too low, or the quarters are too low. In either case the horse will be improved in appearance. If the tail be too low, the horse will have a plain appearance. Prick and pulley the tail, and gaiety and style will take the place of vulgarity. If the quarters be too low, the elevation of the tail will elevate them in appearance, and the horse will seem to be higher as well as gayer. Many persons suppose that a horse's tail must always be docked as well as pricked to make it a good one. This is sometimes the case, but it is rarely so. Pricking alone will generally give an up-set and gay tail. If a horse carry his tail on either side, nothing but docking, in addition to pricking, will correct the defect. The reason for docking is other than making a good tail. Docking is ordinarily done for safety and convenience. But for these, tails should never be docked. On the other hand, to secure them, all tails, if necessary, should be docked. The tail is a protection against flies, and is useful as rendering the horse more quiet. Hence coach, stage, and omnibus horses should never have their tails docked, as they are driven from elevated seats and cannot make their tails an inconvenience. But whenever the horse is to be driven with the driver on a level with the horse, a long tail is a nuisance, and in most cases a dangerous one. His tail is flirted over the reins, and all power to control him is lost. From this cause fatal accidents often occur. They never happen with a docked tail; they cannot. Every horse to be driven in such a way that his tail may interfere with the reins, should be docked. Many persons insist that the horse when used for the saddle should be docked, as a long tail soils the dress. This is a poor reason for a cruel operation on the horse, and insufficient, if it be the only one. They who ride on horseback should be dressed to be soiled, as riding is a clothes-soiling amusement. Safety, or convenience as connected with safety, or the inability to give the horse his proper look and style, without docking, is the only reason that docking should ever be resorted to. When these demand, there should be no hesitation; but regard should be had to a proper and as little cruel an operation as possible. No weak, limber, or light-haired dock should ever be cut.

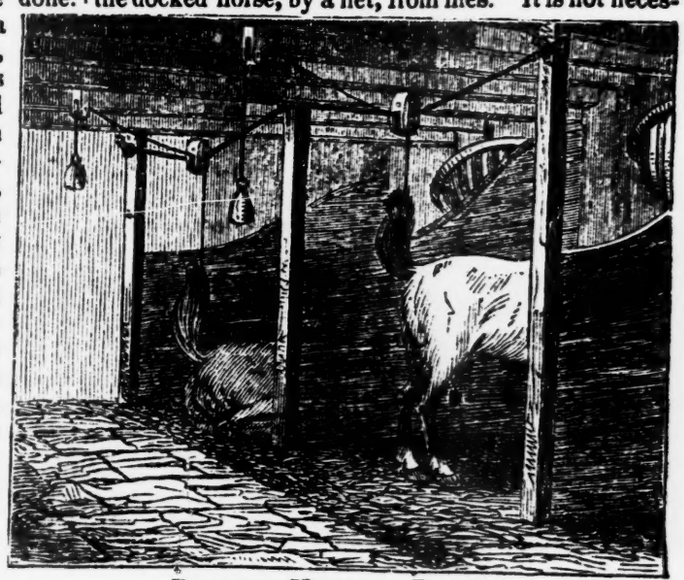
In our number for April, page 110, we gave a proper method for pricking. To that we now refer. There is another method in use, which we describe here, in order to warn against it. It is altogether in use in England, Ireland, and Scotland; in America it is sometimes adopted. It is barbarous in the extreme, and should be discountenanced. A gash is made on the under side of the tail, from the hair on one side to the hair on the other; and another gash two inches from the first, and the cords between the two gashes pulled out; two large wounds are made, much fever is induced, and not unfrequently so much hair lost that the tail is ruined. Where the horse is pricked as directed at page 110, there is no wound, for nothing but the cord is cut, and that is insensible, and cannot properly be wounded. A sore tail arises from wounds to the skin and the flesh which surround the cords. In the improved method the skin and flesh are not cut, save in a trifling manner.

There are three methods of docking. 1st, A sharp pointed knife is inserted at the joint and the tail unjointed and cut off at the proper length. 2d. A docking machine is used; this acts much as the knives of cutting boxes; the tail is placed on the under part or bed, and the knife, which turns on a joint at the end opposite the handle, is pressed down on the tail, cutting it off. 3d. A block is placed under the tail and some sharp cutting instrument, as an axe, or hatchet, or shaving-knife placed on the tail, and a smart blow struck upon it. The hair should be separated at the

point of cutting; and care should be taken to cut the tail at a joint, for if one of the bones be cut through, the part left on will exfoliate (or rot), and drop off; and the tail cannot heal until exfoliation is done. If the tail be cut at the joint, it will heal in less time than the bone can exfoliate, and after the bone be exfoliated, the tail will be longer in healing than if cut at the joint. It is common to suppose that there is danger from bleeding after docking. There is however none, and so far as our experience goes, the tail is better for a copious bleeding, as it acts to diminish the tendency to inflammation. A hot iron is frequently used to cauterize the tail, and thus prevent the bleeding; this is barbarous and *worse* than useless, as it increases inflammation. It should never be done. Separate the tail at the joint, tie the hair with a twine string close up to the end of the stump, and let it bleed; it will in a couple of hours cease; the blood will clot and shield the tail from the action of the air (this is important in cold weather) and materially assist in the healing; at the end of the second day from cutting, untie the string, wash the tail with blood-warm soft water, and let it be to heal, occasionally washing it. If there be no hurry to make the tail, let it heal before pricking. When healed, adopt our method for pricking as recommended in the April number. Let the tail be for a day or two after the pricking: wash it in warm water, and if there be much soreness, apply any soothing wash which will remove the soreness; in a day or two, or more (according as the soreness is removed), put the tail in the pulleys and continue to wash daily. Our cut will represent the manner of pulleying. The plate is so plain that no description is necessary. A better method is, however, to have two pulleys, one on each side, but on the same principle. This will allow the horse to move from one side to the other, and yet carry the tail straight up. Sometimes the tail is carried on one side; if so it cannot be made straight without two pulleys; when the tail is carried awry, make the weight heavier on the opposite side, and cut the cord once more on the awry side than the other. With *care* it may be made straight; and a straight tail for the *want* of care may be and is often made crooked. Whenever a tail is to be pricked merely, and left its full length undocked, it must not be pulleyed from the end, but the cord which goes from the pulley to the hair must be fastened in the hair at about eight inches from the body; otherwise the tail may be made crooked; in a full length tail the end does not need elevating, but the centre of it does, to give it a handsome curve; this the pulleying from the centre does and avoids a crook which may arise from the weight of the tail if pulleyed from the end.

Properly done, the whole process of making a tail is but little cruel or troublesome to ordinary horses; and only so to horses highly sensitive and nervously excitable; but to such, even saddle or collar galls are horrible. If there be no hurry, dock the tail and let it heal; this will be in a fortnight to one month; and after the first three days the horse may do his work. When healed prick and pulley; keeping the horse after the first day or two in the pulleys day and night, unless he will not lie down when in them; but most horses will lie down. If these different operations be not *crowded* on to each other, there will be little difficulty or cruelty, and the tail will be certainly made a good one. Tails are often ruined by pressing the docking, the pricking, and pulleying on each other, with perhaps the cautery of hot iron added. This concentrates the irritating and inflammatory effect of all these operations, on to the tail at once; and a loss of hair, and even a ruined tail are not unfrequent consequences.

In conclusion of our long article (long from the importance of the subject), we have to say, that in view of the safety of all who drive horses (except from elevated seats) the tails should be docked. Humanity will make easy, by proper care, the process of docking, pricking, and pulleying, and will protect the docked horse, by a net, from flies. It is not necessary to dock tails to make them be carried well; that can be done by pricking and pulleying, and properly conducted these are not any more barbarous than all the ordinary breaking and training of horses. Docking is required for safety, and true humanity, seeing that human life should be protected, will feel that a million of tails should be docked rather than one life be lost. It is objected to docking, that it weakens the back. This is not so, at least never detected by experience; nor does it strengthen the back as claimed by its strenuous advocates. Sometimes spinal irritation and even lock-jaw are produced, but these and not the docking do the harm.



PRICKING HORSES.—FIG. 76.

THE PRESENT WINTER.—We perceive that the believers in signs prophesy that the present winter will be a severe one; but if the rule which we laid down three years ago prove correct, namely, that a dry summer is the forerunner of a mild winter, and a wet summer of a severe one, those who are so short in fodder will have no reason to complain. The two past months have been very favorable for the growth of grass, and young stock in favorable places in this vicinity, are still getting a pretty good living from the pastures.

COMPOSITION FOR GRAFTING.—Take ½ lb. of beeswax, ½ lb. of tallow, and 4 lbs. rosin, melt the whole well together, and when it gets cold, work it up with the hand till it becomes of a proper consistency. When used it will be necessary to warm it a little.

HIGH PRICES OF PRODUCE.

No one can be more rejoiced than we are at the benefit accruing to the farmers in consequence of the late advances in the prices of produce. But while we congratulate them on the ample remuneration they are now receiving for their labors, we sincerely hope that they will take good care of what money they receive—pay their debts if they owe any, and if not, instead of buying more land, cast about to see how they can improve what they already possess. More and more land is the unceasing cry of the American farmer; and when he gets it, nine chances out of ten that it is not more vexation than profit to him. The great curse of the farmer is his *large* possession of *land*, and his *little* possession of *capital*, thus rendering it utterly impossible for him to properly cultivate it. Recollect, land which is not giving abundant crops is just like an idle horse that has got to be daily fed and curried. It eats largely in the interest of the money paid, or covenanted to be paid for it, and requires more or less watching and care. Not to desire more acres, but how to better cultivate those already in possession, should be the motto of the farmer in this country, as it generally is in Europe.

Another thing, keep your sons steadily at their business, and above all, clear of merchandize and professions. They may become bankrupts in the first, and starve in the second; but if kept at work on the farm, will be pretty certain to be preserved in virtuous habits, earn a good and honest living, and have something over every year with which they can ultimately purchase or hire and stock a farm for themselves.

Keep your wives and daughters from buying gewgaws and gadding about the country, because their husband or father has got a little more for his wheat and corn, or pork and beef, this year than he did the last. If there is any money to be spared, let it be laid out in useful books, and take time to read them and improve the mind. How much more respectable and agreeable is the farmer's wife and daughters with intelligent minds and plain clothes, than the gaudy butterflies that too often flit about our cities, we need not say. The former inspire respect from all they meet, and are useful members of society; while for the latter we feel only pity, contempt, or disgust, for they are without benefit either to themselves or others.

GOOD MILKING COWS.

In consequence of the great scarcity of fodder, many an animal must go to the shambles that would otherwise have been wintered for a breeder. Now therefore is the time for the farmers to select their best milking cows and fat the rest. To be a good milker is the paramount merit of cows even while the dairy is considered of secondary consequence, and the milk goes principally to rearing the calf; its importance for this object alone is of great magnitude in giving a quick, full, and perfect development to the calf. In those sections of the South and West, where beef is the principal object of attention, great regard should be paid to the form which is destined to give the proper shape and rapid and early maturity, and a choice quality to the carcase when fitted for the shambles. Wherever the dairy is the leading object, the utmost attention should be paid to the quantity and quality of milk produced. We deem this a matter of so much importance, that we should unhesitatingly withhold a premium from a cow exhibited at any Agricultural Society of the Northern part of the Union, however meritorious the form, appearance, and blood, if the most satisfactory record of the quantity of milk produced between her annual calvings were not given, and its quality specifically determined for the purposes of making into butter; and if practicable, cheese also. The quantity of milk alone, without a knowledge of its capability for conversion into the latter products, we think a very unsatisfactory test of merit; as it has been frequently shown that a cow, producing less than half the quantity of another, has given a much larger yield of butter. Much also depends on the manner of feeding. A cow placed in a stable, or in a small, well shaded enclosure, taking little exercise, and fed on peculiarly succulent food, such as an abundance of fresh clover, roots, rich slops, &c., will yield a large increase of milk over one which is allowed to ramble in an extended range, and exposed to a summer's sun, or fed on a drier, yet nutritious food. The difference resulting from the opposite circumstances, if carried to extremes, would not be less than two to one in the same animal in quantity of milk; though it would be much less in butter; and probably if converted into cheese, the result might be even reversed. It is generally the case that wherever the dairy is an object of attention, oxen are much used for the yoke. It then becomes necessary to unite with her milking qualities such form in the cow as will insure a working animal of the right shape and limbs.

Charcoal.—Save all the charcoal dust you can lay your hands on, at a fair price, and apply it immediately to your winter grain and grass lands. It is warming in winter, and attracts moisture in summer, and as it decomposes, affords food for the plant. It can be applied broad-cast, at the rate of 100 bushels down to 20 per acre, with visible good effect.

Setting out Trees.—One cannot be too careful in setting out fruit trees. A friend of ours is now setting out an orchard of 15,000 trees. He began two years ago, by chucking his trees into the ground with roots all crooked up, like a frozen chicken's claws; but he soon found out his error, and has since spent double the time in digging round and straightening out the roots, and manuring them, that it would have taken to have set them out properly at first. He has just given an order for a quantity of trees to one of our best nurserymen, with positive instructions not to have a root marred; and he says he shall put a wheel-barrow load of well-amalgamated and well-rotted manure to each tree, mixed with the earth, with which he fills up the hole. One thousand trees well set out, and well cultivated after they are set out, will be worth more, and bear more fruit, than ten thousand carelessly set out and then left to themselves.

Apology.—An apology is due to our subscribers for the late appearance of the Agriculturist last month. It was owing entirely to the unparalleled drouth, the paper maker being unable to furnish his usual supply, in time, in consequence of want of water to run his mill. The publishers have provided for such a contingency in future.

Agriculture in Scotland.—No. 14.

In my letters of June and July, I gave you a sketch of a journey through some of the best cultivated counties of England, where for hundreds of years civilisation has reigned, and where the hand of man is visible wherever the eye can rest. Since that time, in the island of Islay, from which I have lately returned, I have seen a country some parts of which are almost as wild and unsubdued as our far Western settlements, where civilisation has comparatively but begun its work.

Islay is 25 miles in length, and 22 in width, and has long been the residence of a powerful branch of the clan Campbell. Mr. Campbell, of Islay, the chieftain, owns, with the exception of two small estates, the whole island, having about 16,000 people on his property. Between the Southwestern point of Islay, and Ireland, is but 21 miles, while from the tall cliffs of the West coast spreads out the broad Atlantic, with no land nearer than America. On the North are the islands of Mull and Colonsay, and on the East, Jura and the Mull of Cantire.

The present Mr. Campbell has labored diligently to improve the island, and has effected wonders. It was at his invitation that Prof. Johnston visited the island at this time, and gave two lectures. The first of these was upon the soil, and the second on the crops and manures. Both were remarkably well attended, and evidently awakened an interest which bids fair to be permanent. An interval of several days elapsed between the first and second lecture, and in the meantime we traversed the greater part of the island. The Professor, therefore, was able at the second to give them hints as to their most prominent defects.

The greater part of the island is slate, but there is a considerable extent of limestone, and patches of trap have thrust themselves to the surface in many places. The soil from the decomposition of the trap and limestone is very good, and that from the slate is quite improveable; under it, however, a hard pan, or band of iron ochre, is apt to form, and sometimes accumulates to a thickness of 6 or 8 inches. Into this no roots of cultivated crops will penetrate, and the soil is only available therefore above it. This is to be removed by breaking up with the subsoil plow, and putting in drains into which it may be washed by the rains, and carried away. All of the hollows, and a great portion of the high lands, have been, or are, covered with peat, forming in particular situations beds of 20 and 30 feet in thickness. Upon this peat are now some of the best farms in the island. The first step is of course to drain; this accomplished, there is little difficulty in raising excellent crops. The drains are frequently made from the peat itself, and are either wedge or shoulder drains, according to the shape.

Draining is quite indispensable in all the land of the island. This fact is fast becoming known to all the tenants, and the work is going on with a considerable degree of rapidity. Mr. Campbell defrays a large portion of the expense. Some of the larger tenants have now laid many miles. One of them has laid dry a loch of about 25 acres, and has the whole bottom of it thorough drained and under crop this year.

One great difficulty of the Islay people has been a want of good roads. The present Mr. Campbell has made strenuous exertions in this respect, and to a great extent has succeeded. The present roads are all very good, and several new ones are in progress, which will open up extensive districts. Another difficulty has been the want of markets; these are now brought quite near to them by steamers, of which four or five touch at different points during each week. A mill is also in progress of erection for manufacturing potato starch, flour, &c. This will be an outlet for that bulky crop, one of the great staples of the island.

Oats and potatoes are the two great crops, and of both we saw very fine fields. Wheat is now grown on some of the most improved farms, and some of it is remarkably good. Turnips are gradually gaining ground. They cannot be grown well on peaty soil unless it is thoroughly drained and pulverized. On one field of the home farm was the finest crop of Swedes I have seen this season. This was on a rather light limestone soil, manured with guano and farm-yard dung. In a little valley beyond was a beautiful meadow, with full ten feet of solid peat under the turf. All of the plantations about Islay House, which are very flourishing and extensive, are on what was twenty years ago an impassable bog.

The farm-yard manure is generally not well preserved. They frequently make good compost heaps; but even then the liquid is suffered to run away, and thus a most valuable portion is entirely lost. Prof. Johnston has, however, stimulated them on this subject, and I think there will now be tanks built, and many other improvements made. A considerable quantity of guano is used, and various saline manures. There are extensive shell sand beaches on various parts of the shores, and some of it is of excellent quality. It is used extensively, and is an inestimable advantage in some of the wild districts. Farther inland Mr. Campbell burns the limestone, and gives it to those tenants who choose to come for it.

On the whole, the present condition of Islay seems to me very encouraging. It is true that large tracts of bog, heather, and waste land everywhere meet the eye, and that much of the farming is slovenly; but there is also much improvement, and many things indicative of a change for the better. We must not compare them with the Lothians; but remember that in their isolated situation, they have been as to cultivation in a state of perfect barbarism. Comparing the advantages of the two districts, it may be questioned if they have not advanced faster within the last ten years than the Lothians. They merit praise rather than censure. There is an onward movement among them, and the end of the next twenty years will, in all probability, see a wonderful change.

Edinburgh, Oct. 1, 1845. JOHN P. NORTON.

A COMPACT, ECONOMICAL, AND PERFECTLY SAFE BOILER.—I want some contrivance for heating water for stock, as suggested by your late correspondent "R." A large amount of heat is not required, but absolute safety is, for barn premises. I see a notice in an old number of the Maine Farmer, of a patent boiler, invented by Dimon B. Barnum, of Conn., who sold to Gen. Ladd, of Hallowell, Maine, a right to use it. Will some of your readers, or contemporary journals, give us the results of this, and any other better plan, that we may have the best before us. ECONOMY.

OVERSEERS AND THEIR EMPLOYERS.

I THINK that the remarks of "S.," from South Carolina, page 319 of the October number, are a just and true statement of what we have to contend with, in relation to overseers, so far as eight tenths are concerned: their wish is in most cases to make crops and manage a plantation with little or no trouble to themselves; the result is, at last the employer bears the burden on his own shoulders. We need a different kind of men from what we now have; that is, a class who would enter into it as a business for life, or a profession; not as places for temporal employment or a home, but as an honorable profession, with a desire to learn both the theoretical and practical part of the duties. Such a class of men would add more to the agricultural interest of the South than all the new modes and theory now in operation. Improvements made elsewhere can never be introduced successfully among us, so long as our managers are prepared and determined to resist. Let them undertake it unwillingly, and nine in ten cases a failure is inevitable, the result, a condemnation, and prejudices against the whole course. A war in opinions exists between the employer and his overseer, which can never be settled until this change is wrought; it now is as a house divided against itself.

All overseers, or I may say, by far the largest number of them, look upon instructions as lessening their own knowledge, or underrating their judgments. From this cause, prejudice is a strong trait in their characters, and keeps us so far behind the improvements of the day. It is seldom or never that we can procure a man that will keep an eye to the whole interest of the plantation. He may make a heavy crop of cotton, an economical crop of corn, and stocks of hogs and cattle costing him no thought, they being valued in his judgment of little or no consequence. Impress upon him their value and importance, their reply is apt to be, "poor range—had no corn to spare—they all died last summer." Cotton they consider is the elevator of their reputations; for it is generally asked and known the quantity each man makes. His provisions and stocks are generally taken for granted that all is well. A large amount of bales sounds well, all for money; but it is never known how or where that money is to be applied by the owners. So much for overseers; now for their employers.

The first thing considered by one hearing this story, would naturally be, how do they hire overseers? Do they make no contracts? have no understanding as regards duty? hold no authority over their own? or do they merely hire a man, never watch his course or daily duties, and let him act as he may think proper from beginning to end? These questions will at once cause an employer to examine into contracts as well as his own interest, both as regards lost time, waste, and destruction; and if proper value is set upon all these things by the owner, his duty should be, first, by a strict understanding with his overseer, to have them properly attended to; if not, discontinue his services at once. Resolution is necessary with all men engaged in business, particularly the farmer; if he does not possess it, he may be considered but a man of accident, and with so many different duties to attend to, he must be resolute in giving to them their necessary attention. We can scarcely look for those requisite qualifications in overseers, until the planters first set the example of being acquainted with their own duties in all their bearings; and then we can instruct young men entering on such duties with confidence and assurance of success. When it arrives to this state, a new era will have been established, which will enlighten all concerned to their true interest and policy to be pursued; until then, the difficulties now complained of will generally exist. JNO. H. DENT.

Cowikee Creek, Ala., Oct. 20, 1845.

BUCKWHEAT.

Culture, Uses, and Manufacture.—Buckwheat is a native of Northern Asia, and seems to have been introduced into our country at its first settlement. It stands lowest among the grain crops of the farmer, and is seldom included in any regular rotation, but is cultivated on some piece of new land, or some field out of its regular order. Though this crop is very uncertain, and its cultivation by no means general, yet it is on the increase, as may be seen by Mr. Ellsworth's tables. The Report of 1844 puts the whole crop at 9,000,000 bushels, or about 15 per cent. over that of 1841. More than two-thirds of this is grown in the States of New York and Pennsylvania. Among the New England States, Connecticut takes the lead, while Ohio is most engaged in its cultivation in the valley of the West.

Among the poorer classes of farmers its cultivation is induced by the little comparative outlay of seed and labor, and the quickness of the returns; only about 65 or 70 days being required from seed time to harvest. It also suits those who never seem to shake off their winter habits and get fairly agoing till the seed time for the earlier crops is past. By some it has been considered a very exhausting crop; but this is by no means the generally received opinion. It is more easily affected by the weather than any other grain, and a dry season, a hot sun upon the blossoms, or an early frost, is sufficient to seal its ruin. Good crops of it are sometimes grown on very poor land, if the season is propitious.

It is generally sown about the first of July, and about a half bushel of seed to the acre is required. The better the ground, the less seed is wanted; the most successful cultivators considering it an object to have a rather thin stand, large straw, and well branched out, in order to have a good yield. Rye is sometimes sown with it, and a tolerable yield obtained when the season favors. Thus two crops are obtained with the same plowing. The ground for buckwheat is generally broken up just after corn-planting, and again crossed just before sowing. Upon a sod, one plowing is considered sufficient.

The harvesting commences in September, and usually takes two weeks from the time of cutting with cradles or scythes, till taken in and threshed out. When the day promises to be fine, while it is yet damp with the dew, it is rolled up in bunches on the swarth, and drawn in and threshed out in the afternoon. It needs careful handling, or much will be lost by shelling out. It is often threshed upon the ground in the field where it grew, by which much dirt and gravel is collected with it, and the quality of the flour depreciated thereby. Our good friend, Solon Robinson, of Indiana, assured us, some years ago, that there was no necessity for threshing it right out, but that it might be kept in stacks or mows like

any other grain. This might be, if taken in right dry; but I can see little to be gained, and a certain loss in the shape of depredations by rats and mice. The straw, too, would be worth little or nothing for fodder, if taken in so dry.

The manufacture of this grain seems to be very capricious, and success is not always attained at will. Some of our little "thunder shower" mills have a reputation for grinding this grain which their four story neighbors upon the larger streams strive in vain to acquire. Why it is I know not; but the remark is often made, and surprise expressed that it should be so, when these latter generally have superior machinery, scouring apparatus, &c. About 175 lbs. of grain is required for 100 lbs. of flour, and different mills will produce very different qualities with the same quantity of grain. The essentials of good buckwheat flour are whiteness, absence of all grit, and a clean, soft handling.

The bread, or rather cakes, made of this grain, in some sections, is considered essential to a cold weather meal. In its season it is used almost exclusively by the poorer classes, both on the score of economy and convenience. Medical men have pronounced them unhealthy; and no wonder they should do so, if their judgment is made upon the heavy leaden things that so often come upon the table. As in other things, there is *sleight* in the baking. Our country women are far ahead of your city cooks in this matter, and that, too, without any of those chemical recipes paraded before the public of late years. Analyses made of this grain have shown it to be nutritious. It is said by Prof. Johnston to contain gluten, starch, and sugar, nearly equal to some varieties of wheat. But a hard-working German once in our employ, said it would do very well for supper, to sleep on, but not for breakfast or dinner, to sustain him at his labor. And probably he knew quite as much about it as the Scotch chemist. The analysis made by the German was a real practical one. Give me experience yet. Most kinds of stock are fond of this grain, when ground; and it is the best of "slop" for fresh cows, producing an extra flow of milk, and of superior quality.

The market for this article is not very free or extensive, and farmers do not appear to be very much acquainted with it. Probably three-fourths of the crop is consumed where it is raised, and retailed in the country towns and villages. Except in some sections, the city market is seldom resorted to. For New York, it is put up in kegs or bags of 100, 50, or 25 lbs. each. It is generally sold in lots to wholesale flour dealers, from whom the grocers obtain and retail it. It is sometimes seen in bags as small as 14 lbs. each. There is some little export of this flour from Philadelphia to Southern cities. Three years ago it was sold in Charleston, S. C., as high as $4 per 100 lbs., in quarter kegs. It is now bringing (Nov. 1st) about $2 per 100 lbs., in bags or barrels, in the city of New York, according to the newspapers. It is seldom noticed in the price current or market reports of the daily papers, and I never saw it mentioned but once in the tables of the Agriculturist. I hope, Mr. Editor, in future you will give it more attention. The matter is of considerable importance to some of us. A. R. D.

Hackettstown, Warren Co., N. J., Nov. 1, 1845.

CARE OF STOCK.

I CANNOT let the season pass without saying a few words upon the subject of caring for cattle at the approach of winter. I know men who style themselves farmers, settled upon large tracts of land, with large herds and flocks coursing over them in pursuit of food, without gathering sufficient to keep them from falling off in condition; losing more flesh in two or three weeks than can be gained in a whole winter after having been thus treated. All this grows out of the fact of an over-reaching spirit, in attempting to do too much in too short a period. While the grounds are being seeded the stock is increasing. The hay crop is short, and every lock which is fed to the cattle while the ground is bare is considered a total loss; and there would be no necessity for it if the grounds were seeded as they ought to be, in which case ten acres would produce more feed than one hundred managed the usual way. Land intended for pasture requires a great deal of seed; the farmers in England sometimes sow as high as 47 lbs. of the different grasses to the acre, where the soil is strong, and this, too, upon land well prepared—where every seed will catch if good. The consequence of this abundant seeding is, a thick sward at once; whereas many of the American farmers don't half prepare their land, and the reason is obvious, because the land is new, some of it just cleared of its timber, and it is impossible to place the seed in a position to take root. Hence the spears of grass are so scattering that a grasshopper cannot hop from one spear to another after having trimmed off the leaves without falling to the ground. And now, farmers, let me say to you in conclusion, when you seed your land, let it be well covered with sod, and well coated with grass, before you suffer a foot to tread upon it, and then you may let your cattle run out until the snow falls, and even after, especially horses and sheep, without loss of flesh to the animals.

AGRICULTURAL MATTERS IN NORTH CAROLINA.

SORRY am I to see and know the little interest felt and the abominable neglect of agriculture with most of the planters in this section of country. I do not know a single improving and scientific farmer in this or the adjoining counties. The old system of clearing and wearing out land continues, and not as much grain, &c., is produced from ten acres as might be obtained from one. I felt so anxious that your paper should be patronized and read in Hyde county, which contains more excellent land than any county in the State, and the people solely employed in agriculture, I loaned one of my numbers to an acquaintance, who promised me that he would get subscribers; but I have not yet got my paper, and I fear they have not yet come to the knowledge of the great benefits to be derived from your useful publication. I commenced with Ruffin's Register, which has cost me $40 or $50, and I have never regretted it. I succeeded in getting two or three subscribers to that work, and not a man continued it through its days of publication.

There is so little disposition among us to improve stock, it is impossible to sell a calf of the finest form or best blood for $20. I have one of the Devon, a beautiful mahogany red, and a roan of the Durham breed, and I could not get $15 for either of them. The farmers would sooner let their cows go with a

scrub bull of the country, than have a calf or pay for a better breed.

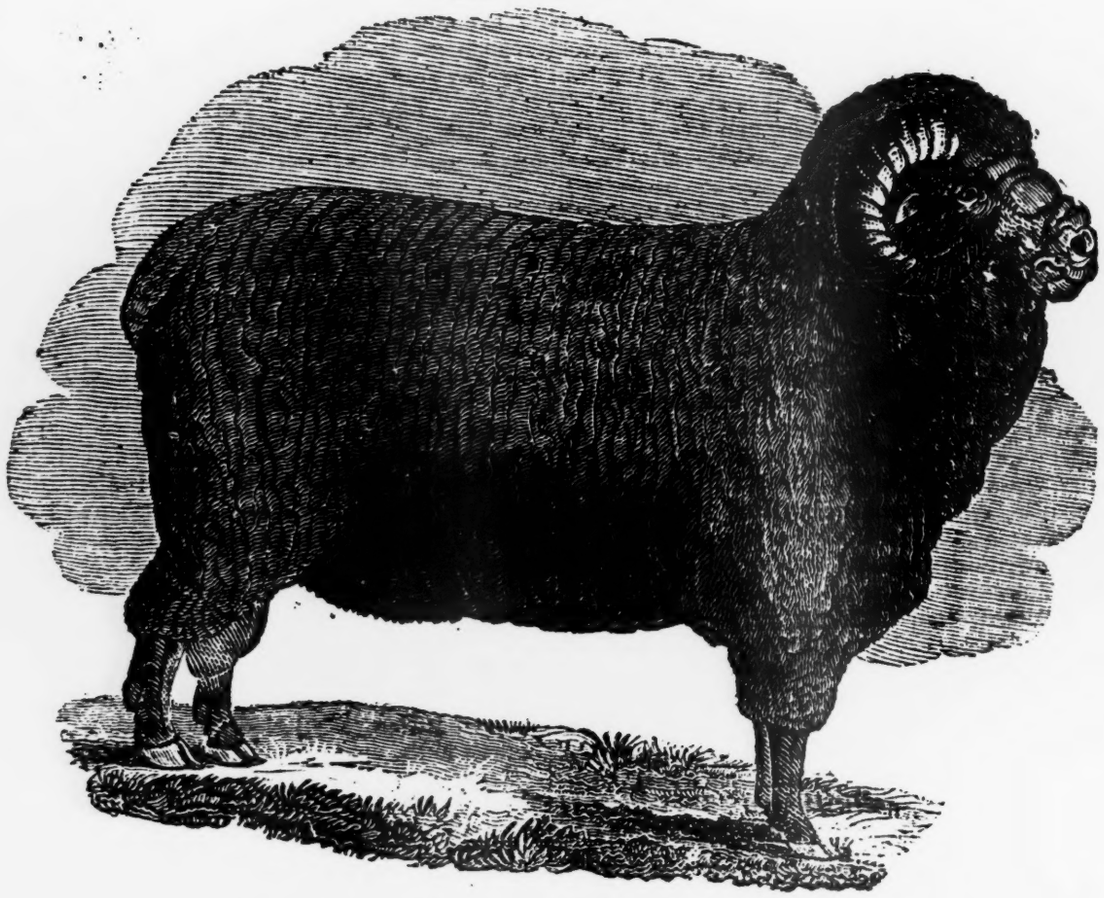
Bishop Ives has lately commenced an Agricultural School which is located in the north-western part of our State. I shall send my eldest son in a few weeks to that institution, and hope it will prove a lasting benefit to him in future life. J. B. M.

North Carolina, Sept., 1845.

MERINO SHEEP.

Vermont has long been celebrated for its good, strong, hardy, heavy fleeced Merino sheep, especially the Western part of it, bordering on Lake Champlain. The flocks are extensive there, and most of the farmers possess a greater or less number. They depend upon their clips of wool something as the South does upon cotton, rice, and sugar; or the West on tobacco, corn, and pork, for their cash incomes. Below we give

Champion.—Fig. 76.



The property of Mr. L. G. Bingham, of Williston, Vt.

Never having seen the original, we presume that the artist has made this buck somewhat coarser than he really is. The outline, however, is good, and shows a strong constitutioned, vigorous animal; one that can shake his head at old Boreas in defiance, blow as hard as he list, or lie in a deep snow storm without suffering, only give him plenty of water to drink, a little salt, and a full stomach of hay, tempered with a small quantity of oats, peas, or beans. We hope to be able to visit Vermont one of these days, and take some lessons in sheep husbandry on the borders of the Green Mountains.

Champion is a yearling sheep, we believe. When 14 months 8 days old, he sheared 10 lbs. 8 oz. clean washed wool.

Water Lime Cement for Water Pipes.—Having had to repair a lead pipe that leaked, and finding the pipe so much corroded that solder would not adhere, I was obliged to resort to other means than soldering, when the following plan suggested itself. There being several places in the pipe, although within a short distance, that were so oxidated that we could not remove the earth without leaving holes in the pipe, we first carefully wrapt a piece of soft leather around it with twine, and masoned it in completely about two inches thick with water lime mortar, made by mixing one part cement with two parts sharp sand, wet to a convenient consistency for use. The plan succeeds well, although the fall is about forty feet in thirty rods. I would recommend cement pipe for water as every way preferable to metal for all ordinary places and purposes; for it is not only much the cheapest, but most durable, and any farmer can lay it after he once knows the principle.

J. W.

A Preventive against Moles.—I have discovered what I consider a sure preventive against the depredations of the ground mole in orchards. Late in the fall I draw fresh muck from the swamp, and put about ten bushels around the trunk of each tree, heaping it about one foot up the tree, then tread or pack it hard and smooth, and it will lie bare nearly all

winter, and the moles will not disturb the bark. If the muck has to be carted a great distance, a quantity as small as one bushel might answer. I have never applied anything as a manure for apple trees on warm land equal to muck. J. W.

Union Dale, Duchess Co.

AGRICULTURAL AFFAIRS IN MICHIGAN AND OHIO.—No. 2.

The Miami valley and country adjacent is, *par eminence*, the great pork growing country of the West Other sections furnish large amounts of pork, but none of so great an extent is so exclusively devoted to its production. Distilleries, too, abound along the whole line of the river, which, together with its tributary, afford large quantities of water power. These convert their grain into another form of marketable product.

Wheat and other grains are cultivated to considerable extent, but they do not seem to realize the superiority in productiveness over other lands which is characteristic of their yield in corn. Grass through the valley seems to produce only the average crop on good lands elsewhere. Fruit is generally abundant, but is almost entirely cut off this season. After frequent inquiries, and looking over the entire markets in Cincinnati, for two mornings, I saw but a handful of miserable looking peaches in a journey of 500 miles through Ohio. Grapes ripen well, and are usually abundant, but this year they follow, in part, the fate of other fruits. Sweet potatoes, when skilfully cultivated, yield good returns and of fine quality; but they are somewhat inferior to the delicious roots which are produced still farther south. Melons and the minor fruits abound, of fine flavor, and in great profusion.

The natural forest growth throughout the valley is equally beautiful and magnificent. Here is first seen, along this route, the graceful buckeye, which is found only in highly productive soils. Accompanying it is another native of stalworth dimensions, the burr oak, which ever indicates choice land. These sometimes reach the enormous size (for them) of six feet diameter. Black walnut, blue ash, pigeon oak, hackberry, elm, sycamore, cotton wood, hickory, &c., show a vigorous and luxuriant growth, and frequently attain enormous dimensions; while attached to them and clambering to their very tops, with its innumerable branches swinging to and fro, in graceful festoons, reminding one of the self-multiplying trunks of the eastern banian, the grape vine is sometimes seen nearly a foot in diameter. I was informed by an old resident, that there are but two varieties of native grapes. The best of these I found of small size, growing in delicate clusters and affording a pleasant taste. How different from the varied excellence of some of the native eastern vines, where I have seen a dozen varieties of fine natural grapes, blue, purple, red, and white, within the compass of half a mile, rustling in their unostentatious sweetness, on the banks of some secluded streamlet.

As was to have been expected, so fine a farming country was early occupied, and is now comparatively densely settled. But unlike many places, where the indolence and inefficiency of the inhabitants is fully equal to their natural advantages, this is settled by an industrious population, possessing generally much enterprise and intelligence, as is shown by the varied improvements which everywhere dot the country.

Of Cincinnati it would be out of place to speak in a farmer's journal beyond exhibiting it as an index of the farmers' country. It is emphatically built up and sustained by agriculture; for no other commerce or manufactures have lent to her their powerful aid, save what is demanded by the wants of the surrounding country. A city commenced in a wilderness, less than half a century since, already numbering 80,000, and surrounded with the comforts, luxuries, and refinement of the highest civilisation, and all accomplished by the self-impelling influences of individual freemen, is infinitely beyond the achievement of the great Czar Peter, within the same time, in establishing his northern capital. With the resources of an empire at command, he could erect his piles of stone and mortar, and that too by impoverishing other branches of his vast dominions; but he could not impart to his subjects the enlightened mind, the general intelligence, the high moral principle, the determined will, the far-seeing, effective energy and enterprise which stamp the American freeman, and crown his efforts with such signal success. A railroad from Cincinnati, leading up the north bank of the Ohio some miles, through Fulton, the iron and steamboat manufacturing suburbs of the city, soon strikes the valley of the little Miami, which it follows till it reaches Xenia, a distance by the road of 64 miles. This is a part of the line of the road which is to be completed next year to Sandusky, and which is eventually destined to be one of the principal avenues of travel to the great West.

The bottoms of the little Miami, though much more limited, are similar in quality and cultivation to those of their greater namesake. An occasional field of hemp, and many of tobacco, meet the eye; and the cultivation of the latter is somewhat extending of late years. The completion of the railroad, thereby connecting by a cheap and rapid communication, the genial climate of the South, with the great inland seas of the North, will open new and profitable markets for their agriculture. Early fruits and vegetables, and such as cannot be reared in perfection in the East, such as apricots, peaches, grapes, sweet potatoes, &c., &c., will find a constantly growing and inexhaustible demand, and return vastly greater profits to the producer, than is realized from the ordinary staples now principally cultivated; and we can offer no better suggestion to the farmers than to prepare themselves immediately to supply this demand.

Xenia, a flourishing village, is situated in a country not peculiarly eminent for its fertility immediately in its vicinity, yet sufficiently so to make a fair return to the agriculturist. Corn is raised to some extent, but wheat and grass are perhaps more largely cultivated. Much of the soil would seem to be well adapted to rye. A fine turnpike of 44 miles brings the traveller on to the national road 10 miles from Columbus. The latter part of this route passes through what is called "the barrens," which afford a soil of moderate fertility, yielding an occasional good crop of corn; yet better adapted to wheat and grazing. The principal native growth of wood is oak.

Two or three miles west of Columbus, the road enters the valley of the Sciota. This favored valley stretches out for miles to the east and west, on either side of the river, and 100 miles north and south; and it is claimed by its occupants, to equal in fertility the best parts of Kentucky, and the Miami. Here,

as there, corn is the great staple, though much of it is in grass, both of which are produced in large quantities. Wheat is frequently raised in the valley, but is quite liable to rust and lodging. The use of lime and charcoal would probably remove these evils in part; but the abundance and cheapness of land, the remoteness from market, and the frequently low price of products, has thus far had, and will probably for years to come, continue to have a tendency to check such an accurate and well sustained system of agricultural experiments, as are indispensable to the highest success of this pursuit.

As on the Miami, much of the corn raised in this valley is distilled and large quantities are converted into pork; but a greater proportion is probably fed to cattle. Large numbers of them are annually brought from Kentucky and elsewhere, and "finished off," into stall-fed beef, a part of which is barrelled here for foreign exportation, and a part driven to the eastern markets for sale and consumption there. Horses and mules are reared for other markets in considerable numbers, and the latter especially to a great profit. It is somewhat singular, that an animal whose use, and consequently the demand for which, has always been limited to an inconsiderable part of the country, which is more hardy and more easily reared than any other, ever has and still continues to afford a larger profit to the breeders than any other stock. The cultivation of madder has within a few years been introduced into Ohio, and as was to have been expected when intelligently pursued, it has been attended with great success and large profits. The castor bean is largely produced; and flax is extensively raised, but principally for its seed. The silk culture is slowly but surely growing into favor at the West, and is there, as well as in every part of the Union where systematically followed up, destined to yield large returns for the labor and capital bestowed upon it. Columbus is emphatically a "city of the plain." From the cupola of the state house, the eye stretches out in every direction, over an interminable level of uniformly fertile, and where cleared, of well cultivated land. Considerable portions of it are still covered by the original forest; yet numerous and large fields in this and the southwestern part of Ohio were found in a state of cultivation by the aborigines, which has undoubtedly been subjected to more or less tillage for ages. The proof of the early and extensive occupancy of this country, is indisputably afforded by the numerous and sometimes immense tumuli and mounds of various descriptions, and undoubtedly designed for various purposes, which everywhere pervade it. The capital is eligibly situated on the second bottom or plateau above the river, is handsomely laid out in large regular squares, which are well covered with substantial, and in many cases, elegant structures; while in the outskirts are seen the stately architecture and massive proportions of the lunatic asylum and penitentiary; and in a diminished degree, those for the deaf and dumb, and blind. It is a wealthy and growing city, though young and numbering comparatively few inhabitants; but like every other incipient city, backed up by such certain and ample resources as surround her, and which are yet but partially developed, she is destined to a large growth and prosperity hereafter.

My route from here to Cleveland lay principally through the counties of Knox, Wayne, Medina, and Cuyahoga, good counties all, but parts of them exceedingly broken and rough, and though affording but little of the best corn land, yet almost everywhere yielding good wheat. The fields on the Reserve, which in the earlier part of the season were exceedingly parched by drought, were looking somewhat better, and much of the corn was full eared and thrifty, but so backward that an early frost would nip most of it before sufficiently ripe to withstand its effects. So severe and long continued a drought has probably never before been experienced, or at least exceeded, in this or any other State. Although frost and drought have spread over one third of this large commonwealth, cutting off and drying up for an entire season so large a proportion of its whole agricultural resources, still the products of this great and fertile State are so abundant and overwhelming, that after supplying to repletion her population of 2,000,000, she will export millions for consumption abroad during the present year.

A great destiny awaits Ohio. She has accomplished much already. So vast an accumulation of population and wealth, and such an incalculable amount of labor, in clearing away the forests, and covering them everywhere with the necessary and graceful accompaniments of civilisation, and all accomplished in that brief space of time, in the history of a nation, comprehended within the limits of only half a century, are calculated to excite the wonder and admiration of even an American, accustomed as he is to similar, though somewhat less striking examples. Achievements thus conspicuous need only to be followed up, to place her high on the scroll of fame, the admiration not only of her own country, but of the civilized world.

More minuteness and accuracy of details must be excused from me, hurrying through the country on business totally foreign from agricultural matters, and obliged to decline every invitation to examine the numerous and well cultivated farms and fine stocks of cattle, which are daily increasing in number and interest throughout the Western States.

Buffalo, Sept. 20, 1845. R. L. ALLEN.

LEACHED AND UNLEACHED ASHES.

I HAVE perused your paper with profit and satisfaction, and find that it contains much useful information. I am a practical farmer, and wish to improve my mind and soil. The former can be done by making close observations on practice, at the same time storing the mind with useful knowledge, which may be gleaned from many works and publications which are abroad at the present day; and the latter by pursuing a judicious course of husbandry. Will you please to answer through your paper the following queries? Can unleached ashes be profitably applied to land as a manure when they can be obtained for $12.50 per hundred bushels? (*a*) What effect would they have on land, the soil of which is a yellow loam, with a small proportion of gravel, and has been pastured with sheep for many years, and now produces but little feed? (*b*) That part of the field which has been plowed this fall we intend to sow with oats and grass-seed next spring. The remainder we shall plow in the spring, and plant it with corn. I shall apply 100 bushels of ashes, by way of experiment, to the oats. How many bushels ought to be applied to the acre? At what time ought they to be applied? (*c*) Are un-

leached ashes worth more per bushel for manure than leached ones? [No.] If so, what is the difference in their value? (*d*) How many parts of well rotted stable manure are equal to one part of unleached ashes, the ashes to be made from hard wood? [Don't know.] An answer to one or all of the above queries would be gratefully received by

Salem, N. Y. A SUBSCRIBER.

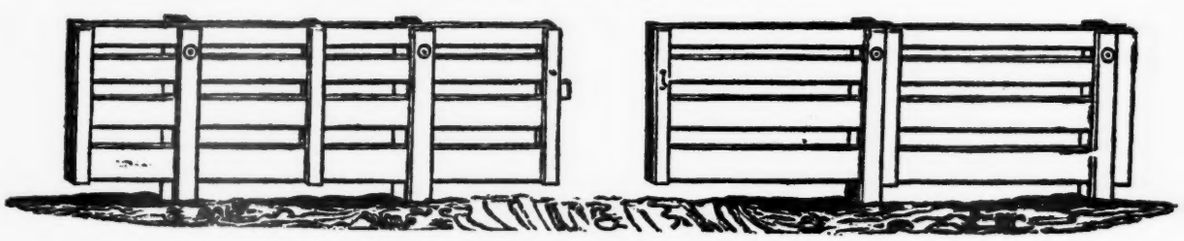
(*a*) We have no doubt they can be profitably applied at this cost in the location of our correspondent. Where produce is cheap and the land fertile, it would not be profitable to pay near as much per bushel. The profit or loss of such applications, however, can only be told after making a series of experiments with ashes by the person purchasing them.

(*b*) A good effect doubtless, though we think that ground bones would answer better, for we are of opinion that the soil is somewhat exhausted of its phosphates, and the bones restore these to it more abundantly than the ashes. But we would advise an experiment, side by side, with bones and ashes, premising to our correspondent that he must not judge too hastily, because the bones do not act as quick as the ashes. Their good effect will be more apparent on pasture land the second year than the first; whereas with ashes it is the reverse.

(*c*) Apply 20 to 100 bushels per acre. After the grain is sowed and harrowed in, sow the ashes broadcast on the land.

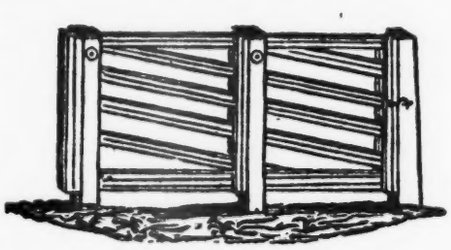
(*d*) We recollect reading some experiments which were made to test the difference in value between leached and unleached ashes, but cannot tell now where to turn to them. If potash is wanted in the land, of course the unleached ashes would be much the most valuable. Will some of our friends answer "A Subscriber" on this point, especially if they themselves have made experiments between leached and unleached ashes?

BAKER'S PATENT FARM GATE.



SELF-BALANCING GATE.—FIG. 78.

THE above is a cut of a self-balancing farm gate invented by Mr. Anson Baker, of Western, N. Y., and is represented in the sketch as partly open. It has been in use some time in Western and the neighboring towns, and is much liked. It runs on rollers inserted in the posts, under the upper slat. It is opened by pushing it to the right and left. It may be made of wood or iron, and costs little more than a pannel of fence. When shut it has the appearance of one of the pannels. It is particularly convenient in winter, those using it not being obliged to clear away the snow in order to open and shut it, nor can it be swayed to and fro by the winds.



SELF-SHUTTING GATE.—FIG. 79.

This is an admirable gate where small ones are wanted; it also runs on rollers. The slats being placed obliquely, the moment the hand lets go of the gate when opened, it instantly slides back and shuts.

Models of the above gates can be seen at our office, and we are authorized by Mr. Baker to sell the patent right for the same, from $3 to $5 per farm, according to its size. Any person slightly acquainted with the use of tools may make these gates.

CANE-BRAKE LANDS.

To open a plantation in the cane, and make a good crop of cotton and a full crop of corn, the first year, the hands should reach by the 15th of December, the proper quantity of cane be cut by the 15th of February, and a good burn be had by the first of April. The earlier the cane is cut, the sooner and better it can be burnt; and as ten to twelve acres of cotton to the hand will be ample, the cane cut for cotton, if season and circumstances favor, can be burnt the first suitable spell of warm dry weather that occurs in March, and that intended for corn can be burnt later. To make certain of a good burn, the leaves on the ground and the ground should be examined, as both should be dry as well as the cane; and fire should be set to the windward side 11½ to 4 o'clock, at distances of 10 to 15 feet, as quickly as possible. In the course of a few days, say two or three, the planting should commence. As the same method of planting serves both for cotton and corn, I will state the one I have pursued, after observing that the rapid, neat, judicious, and successful cultivation of the first and second years with the hoe, can be assured only by having the rows straight, the hills equi-distant, and every foot of the ground, jam up to trees and logs, planted and cultivated.

After squaring the field with stakes, as done for the plow, let one hand out of every eight or ten, a smart, active man, go ahead of the hands that open, and lay off with his weeding hoe guide lines for the latter. By keeping his eye steadily on the stakes, they keep him in line, and but little practice will be render him perfect in laying off. The marks are

made directly in front, three to four feet apart, which, though faintly made, will be visible while fresh, say for a day or two, and will enable those who open to dig the holes rapidly. Moving sideways along the marked lines, they will space the hills with great accuracy, and it will aid them considerably, and the work be better done, were the overseer to keep his measure in his hand, and rule them up to extreme exactness. Of cotton, 15 to 20 seed to the hill will be sufficient, which, when large enough, should be thinned after rains by hand instead of hoe, that the stalk left standing may certainly be uninjured. Planters differ with respect to the distance at which cotton should be planted in the hill and row. On alluvial, 8 feet for the row, and 24 to 30 inches for the drill, are perhaps average and good distances. Right cultivation is a material matter. The drill and 12 to 18 inches on each side should be cultivated as well as possible the first and second workings. The centre between the rows will admit of some neglect if the crop be heavy; but this must be worked as the expanding cotton requires. Very little dirt should be thrown around the cotton at any time, and no hill made to it, lest the growth be made too luxuriant. As observed in my notes, I expect with confidence at least 1,000 lbs. of cotton to the acre the first year, and I may add, that not less than 40 to 50 bushels of corn to the acre should be made. Although but little cane will spring up the second year, the labor of cultivation will be somewhat greater than in the first, as the poke weeds, &c., will be much more abundant. The third year the plow would be required (some use it the second), when the work will be light and the production great, which each succeeding, for many years, will become greater.

It may not be amiss to observe, that the men while engaged in marking the guide lines should strike without taking their eyes off the stakes, and that one of the many advantages, and a great one, that attends regular spacing of the hills is, that a well trained and judicious scraper of cotton soon ascertains the most convenient, rapid, and best method or rule of working such, the loss of which advantage he sensibly feels when the work is not properly prepared for him.

These notes explain and make those on cane-cutting more valuable, and of course should uniformly accompany them. S. S. W. Vick.

Vicksburg, Miss., 1845.

STUDY OF NATURE.

The study of nature can never be sufficiently attended to; every part of it demands our most serious attention, and every part of it repays us for the labor we bestow. Wherever we turn our eyes, a field of contemplation opens to our view. The animal, vegetable, and mineral worlds teem with matter for the exercise of our minds. Nor can agriculture be ever brought to perfection, till a just theory be drawn out from the walks of Nature herself. She is so bountiful to us that her treasure is never exhausted; and the more discoveries we make, the more we find entirely unknown to us. Nature developes in the spontaneous growth of vegetation, important facts, which, if attended to carefully, will be found highly instructive.

The pursuit of natural history furnishes an innocent and amusing exercise to the faculties of the human mind. With mere amusement we are not to rest satisfied; the claims of society forbid it; our exertions should be *active* and *benevolent;* and the philosopher in his study should remember that he is still a citizen of the world.

If we look into the annals of history we may remark, that many nations have observed certain periods for sowing, planting, and reaping, confirmed by the appearance of leaves on particular trees, or the migrations of birds, which almost invariably corresponds with the leafing of these trees. The Indian rule is never to plant corn until the apple trees are in bloom.

By taking nature as our guide, the farmer may adjust his times of sowing, planting, and reaping with more certainty. He may frequently insure a good crop, by keeping his seed in the granary till nature has pointed out a proper time for sowing it.

Would it not be well to revive that old and useful custom of observing the times of budding, leafing, and flowering of plants and trees, because these appearances seem to have been designed by Providence as our surest guides in conducting rural matters. They ascertain the exact times of sowing, planting, and reaping. They are the best thermometers (if I may be allowed the expression) which we can use, after they have been regulated and confirmed by experience.

The regular return of seasons, and the invariable order that vegetables observe in budding, leafing, and flowering, bespeak Almighty wisdom and Almighty power. A mind harmonized to such Divine contemplations, sees at all times, and feels with warmth, the goodness of the Creator to the created. He considers the work of nature as the silent but expressive language of the Deity; and while he sees only to admire, is wrapt in gratitude and devotion.

Albany, Nov., 1845. C. N. Bement.

A VISIT TO A YANKEE PLOW FACTORY.

While in Boston, the other day, I called in to take a look at the extensive sales-rooms of Messrs. Ruggles, Nourse, and Mason, which are kept in the great hall of the Boston Market House, where I found the greatest assortment I ever saw of plows, harrows, hoes, shovels, spades, forks, churns, cheese-presses, straw-cutters, and an immense variety of agricultural implements and seeds, of a quality worthy of all commendation. Not being personally acquainted with either of the partners of this concern, and feeling at a loss to know where to look over such a host of farming tools as I had never before seen together, I inquired for one of the proprietors, when a man in his shirt-sleeves, hard at work, was pointed out to me as Mr. Nourse. Not having the fear of meeting a man above his business, I approached and made known my name to him, and instantly received the welcome of an old acquaintance, though known before only on paper.

After spending the day examining this museum of specimens of what mechanical skill has accomplished for the benefit of farmers, I accepted an invitation from Mr. Nourse to go out next day to Worcester, 44 miles by railroad, to see where and *how plows are made by machinery.* At Worcester I found the other two partners personally superintending their extensive establishment. They are all practical mechanics, as well as farmers, and Messrs. Ruggles

and Nourse were born, if not plow-makers, of plow-making fathers, and early bred to the business. But in those days the plow was a very different implement from what it now is.

I found them occupying part of an immense four story building, using both water and steam power, and leasing out the surplus over their own wants to other mechanics, so that the whole building is full of active machinery. They have invented, patented, and have in operation, machinery for making the wood work of plows so perfect and complete, that the timber is taken as it comes from the saw-mill in plank of suitable thickness; for instance, the beam of any particular numbered plow is first cut upon one machine into suitable length, upon another it is sawed the right crook, then it is planed upon a machine that planes a crooked stick as well as a straight one, and almost as rapid as thought. Upon another the double tenon is finished as it were by one stroke of their saws, on another the corners are taken off, and again, every hole is bored, as well as every part of the work done so exact to a gauge, that it requires scarcely any after fitting by hand, and will suit any casting of the size for which it is intended.

The handles and rounds also pass through appropriate machines, and when they finally come to the hands of the workman who fits them to the irons, he has a set of pattern-irons upon a form where every piece being exactly fitted by fixed gauges is passed over to another to be attached to the irons to which they respectively belong—consequently every plow of the same number, no matter when made, *must be exactly like every other one.*

Such is the perfection of the machinery, that the fourteen hands employed in this branch, can wood from 50 to 80 plows per day, working eleven hours. The castings are made in a separate building, and about twenty hands are employed in this branch. From the foundry the castings are brought to the grinding room and cleansed of sand by vitriol, and then polished upon grindstones. This is a tedious though important process, as by it the whole of the exposed parts are made so smooth that the dirt is not likely to adhere, and the plow runs vastly easier.

The irons are all made of the best quality of soft tough iron, while the edge of the wing part and base of the land-side is made so hard by being chilled in the mould, that the hardest steel will not cut it, and the point never wears blunt.

In the blacksmiths' shop I found eleven men at work, some by charcoal and others by Lehigh coal fires, blown by one machine which furnishes wind to each forge through pipes, and is let on or shut off by stop-cocks.

In the paint shop seven men are employed painting and varnishing, the latter being preferred by some because they can see the quality of the wood—though I must recommend paint as far preferable; and where all the work is done by upright men who put their names upon every article, buyers need have no fear that bad timber is covered up with paint and putty.

Never have I spent a day more to my satisfaction, than in looking over this establishment for the manufacture of that first and most important of all implements—the plow—and where I found near forty different kinds and sizes adapted to all kinds of land and work, including five sizes of side hill plows, some of which are peculiarly adapted to that remarkably light soil found upon the steep side hills of Mississippi. Messrs. Ruggles, Nourse, and Mason, are also making some excellent cast-iron road scrapers (ox-shovels), and several sizes and kinds of cultivators and harrows, among which I rank the Geddes Harrows as the very best.

They also make or have made almost every other kind of agricultural implement; though as you will readily perceive, the principal energies of their active minds are devoted to manufacturing the most perfect set of plows that human ingenuity is capable of producing. There are two other plow establishments in the vicinity which in consequence of my feeble health I was unable to visit.

I am rejoiced to say, that Messrs. Ruggles, Nourse, and Mason, are so constantly crowded with orders for their plows, that they cannot accumulate a stock on hand, which certainly shows that the spirit of improvement is actively at work among my brother farmers, who I hope will be interested in this visit to a Yankee plow factory by their old friend,

New York, Oct. 23, 1845. SOLON ROBINSON.

MANAGEMENT OF COLTS.

Weaning.—Let the colt run with his dam until taken into winter quarters in the stable, then tie mare and colt in the same stall, but in such a manner that the colt cannot suck except when he is loosed for that purpose, once a day, until the mare is dried of her milk. Feed him alternately with oats, shorts, or roots, once or twice a day, and all the good hay he will eat. Give him plenty of exercise twice a day, in leading to water; curry or card him clean daily, and let him be well bedded with straw.

Bitting.—Take your colt when he is coming four years old, into a square box stable, put the bitting apparatus upon him twice a day, for a half hour or an hour (not longer, as it is painful to the muscles), gradually drawing in the nose each time, until it is to your liking. When he has become accustomed to it, turn him into an enclosure to stand, walk or run, as suits his inclination; then go to him after a half hour or so, take off the bitting bridle, and give him an apple, scratch his nose, and in a kind voice tell him to come along, and he will follow you into the stable. Have a trough instead of rack for his feed, and so constructed as to oblige him to raise his head a little, and curb in his nose, in order to get his food, having one apartment for hay, and another for oats and roots. Have a high window cut out at one side of the stall, where he can stand with head up and amuse himself in looking at the other horses and colts in the yard. This will greatly relieve the irksomeness of his confinement, and make him more gentle. If of a bad disposition, however, he may require close confinement in rather a dark stable. S.

REMEDY FOR THE BOTS.—I have used the following receipt for the bots for a number of years, and have never known it to fail in a single instance, when given in time. I have known horses in the most excruciating agony immediately relieved after taking the drench, and commence eating. Previous to giving the drench, rub the flanks of the horse with spirits of turpentine, then take of linseed oil half a pint, molasses half a pint, sweet milk one pint, mix well together and pour down the horse's throat from a strong junk bottle. S. J. JONES.

Shoal Ford, Ala., Oct. 27, 1845.

A GOOD METHOD TO SUSTAIN COUNTY AGRICULTURAL SOCIETIES.

Since reading the editorial remarks in the October number of the Agriculturist, in regard to the method adopted in a small district in Canada, to support their agricultural organization, by giving a copy of an agricultural paper to each subscriber, the more I have thought upon it, the more I have been pleased with the project. There is real difficulty in sustaining small organizations of this nature. After a few years, members feel as if their money was thrown away which was given to this object. Many gave in the hope of receiving some return, in the way of premiums. They have been sadly disappointed, and not unfrequently bitterly prejudiced. The old story is bandied about for the thousandth time, that all the premiums go to judges, lawyers, doctors, and the magnates of the land, and a poor or private citizen can get nothing. The popular prejudice runs high, and the cause dies in the hands of those whom it was intended to benefit.

Now, adopt the course which you suggest, Mr. Editor, and this obstacle is overleaped at once. Give every subscriber to a county organization a copy of your paper for his subscription of a dollar to its funds; and, whether he wins or not at the fair, he will feel that he has a "*quid pro quo*"—a value received for his money. He will be made the wiser and the better by his reading. His attachment to the Society will increase. His advance in improvement will be secured. He will lose the selfish principle in which he acted before. *I like the plan.*

Suppose, for example, that we, in this county of Chittenden, State of Vermont, could adopt the plan for our Society, and could get 1,000 subscribers. We might reasonably anticipate that you would give us 1,000 copies of your paper for $500, and then we should have $500 in the treasury of the Society. One thousand subscribers to an agricultural paper in this single county, and by this means, $500 in the Treasury of the Society! Only think of it. What an influence would be exerted upon the agricultural interests of this county in a single year, by one thousand volumes of your invaluable paper! What a stimulus would be given to every department of husbandry—what innocent, but high-souled competition, would be put in motion in a thousand farms! What valuable researches would be made, and what experiments would be tried, which might bring out results of untold value to the country and the world! And suppose this example could be followed by a thousand other county organizations in the land—and we should have an agricultural literature adapted to all, and scattered monthly over all—who can tell the grand and high results? Think of *one hundred thousand reading—thinking* farmers!

Now I am right earnest about this matter, and I mean to do as well as write, to bring this noble end about. We, in Chittenden County, who have become acquainted with the plan, like it; and we shall use our influence to have the plan adopted at our annual meeting in January. We believe it will meet with favor everywhere, among our members. *Why not, everywhere?*

Shall it be adopted elsewhere? What say you in the sister counties in Vermont? What say you all over the Empire State? What say you, Down Easters, away in the State of Maine? What say you, on the Granite Hills, in the Bay State, and in the Land of Steady Habits? What say *you*, Little Rhody? What say you, Jersey Blues? Shall the plan be adopted? What say you, Pennsylvanians and Delawares? And in the Old Dominion? What say you, gallant Old Kaintuck? What say you, away out west, Buckeyes, Hoosiers, Corn Crackers, Suckers, and Wolverines? What say you, away down South, on both sides of the Mississippi? and what say you, away on the outskirts of creation? Shall the plan be adopted? Only think of its grand results!

We are now in December, and a new year is almost upon us. What is done in this matter must be done soon. Let 1846 witness to our doings in this respect, and many a year shall roll away, long after the movers in this measure shall be called hence, before the good effects of it shall be forgotten. Who will approve and help by his influence and efforts?

Mr. Editor, I hope you will call attention to this object. I have no doubt but it will go into operation in certain quarters; and, for one, I will do all in my power, to carry out the measure in

Old Chittenden.

P. S. I speak not as above, in behalf of any particular paper. Almost every State in the Union has her agricultural monthly periodical. We have others which partake more of a national character, and are fitted to do good North and South—East and West. I would say, let every subscriber have his choice, according to the district of country where he is found, so far as can be done without too much distraction. In this region, we are well satisfied with the Agriculturist, and this without any invidious comparisons. We like its love of truth—its impartiality—its candor—its abhorrence of cliques—and sinister ends—its sturdy, high-minded, straightforward tone—*We have confidence in its ability and integrity.* O. C.

AMERICAN AGRICULTURAL ASSOCIATION.

This Association held its regular monthly meeting on the 5th of November last, at the Historical Society's rooms. The President being absent, Hugh Maxwell, Esq., one of the Vice Presidents, took the chair, and the minutes of the last meeting were read and approved.

An improved fleam for bleeding animals was exhibited by Dr. Busteed, The lancet was so regulated, that it could be made to cut to any depth, and was propelled by a spring similar to the ordinary spring lancet.

Mr. Stevens exhibited a beautiful model cast of a fat heifer, belonging to Sir Charles Tempest, which took the prize at the last Smithfield cattle show, in London. This model was sent out from England by Mr. Francis Rotch, and shows to great advantage the points of a fat Short-Horn.

A communication was read from Mr. A. B. Allen, stating that he had received a letter from Mr. Taintor, of Connecticut, now travelling in Germany. Mr. T. had forwarded a pamphlet upon the subject of sheep and wool, by Baron De Spreck. Mr. Allen presented the work to the Association. Commodore De Kay moved that it be accepted, and referred to the Corresponding Secretary, with power to have it translated.

Commodore De Kay communicated to the Society the receipt of a letter from Gen. James Semple, U. S.

Senator from Illinois, containing a description of a *prairie car*, which appears to be an improvement on similar inventions. This car runs over the prairie without the necessity of a railroad. It only requires wells to supply it with water, at the distance of 15 miles. Dr. Gardener moved that Commodore De Kay be requested to prepare for the Association, a full account of the car, to be read at the next meeting.

Mr. Edward Clark stated that he had made some successful experiments for preserving diseased potatoes by the use of lime, in different forms. Some he immersed in a weak solution of chloride of lime, for twelve hours, others in lime water, and had dusted some with quick-lime, dry slacked with water. The potatoes thus treated were preserved, while others of the same lot to which lime was not applied, decayed entirely.

Dr. Grice, veterinary surgeon, read a paper upon the horse, and some of the diseases to which that animal is subject.

Mr. Doremus exhibited the electrical apparatus with which he had made some experiments upon plants, during the past season. It appears from his remarks, which were listened to with much attention, that a powerful current of electricity prevents the germination of seeds; and that with the apparatus which he had employed, he could not perceive any beneficial effects on the growth of plants.

A discussion arose upon the subject, and some interesting remarks were made by Dr. Gardner, Mr. Stevens, and Mr. R. L. Pell. The latter gentleman attributed the failure in many cases to the imperfect manner in which the apparatus was constructed, and to inattention in keeping the conducting wires, especially where they join the upper plate, perfectly dry.

The meeting adjourned, after some other business of the society was transacted, to the first Wednesday of December next, at which time several interesting things are expected to be discussed.

A NEW FACT.

It is generally believed that the eggs of weevil, deposited in grains of wheat, are hatched out in the same season before winter, or if not hatched out *then*, that they perish and do no injury to the grain. This may be the case with the white weevil, but it is not true of the black. In the fall of 1843, two years ago, I received from Virginia a shot bag filled with *Conner* wheat—an early ripening variety much valued by some farmers in that State. It was a fair, sound, beautiful sample of grain. I had just sown, before its reception, a small quantity of the same variety, and determined to keep this to sow the next year, fearing some accident to the seeded crop. The shot-bag of wheat was carefully put away in a clothes-press, so carefully that it did not again come to light till about ten days ago. On opening the bag, a number of black weevil were seen, which had come out. Others were in the act of coming out of the grain; and on cutting open grains which appeared sound, the insect was found in the grain. Do not the eggs of insects remain dormant like seeds of plants, till the proper conjuncture of circumstances for their active existence takes place? This may not be for years, or may happen the same year.

The black weevil also hatched out of grain here *of the present year's harvest*, for one of my neighbors culled from his field a small sack of wheat he thought might be a valuable kind, cleaned it out, and suspended it by a rope in an upper room of a house. When he took it down to sow a few weeks ago, he found great numbers of black weevil hatched out since harvest in his sack of selected wheat. The conclusion at which I arrive is, that no season favorable to the active life of these insects has occurred here in 1843 or 1844; but that this season being favorable, not only those deposited this year, but those also remaining dormant in the grain deposited in previous years, have been excited into active existence.

Great injury has been done in this state by these insects this year, and much of the wheat cleaned out has been destroyed by black weevil; and in cases where it was got out of the straw and *left in the chaff*, it has been injured by white weevil—a circumstance causing astonishment, as leaving it in the chaff has been thought a sure preventive of injury by them. The wheat *left in the stacks* till this time is also generally injured, and in some stacks utterly destroyed by the white weevil. Can any of your correspondents tell us how to avoid these injuries to the grain after it is made?

John Lewis.

Llangollen, Ky., Oct. 18, 1845.

WESTERN CALENDAR FOR DECEMBER.

In the hemp growing region, this is a busy month. The residue of the corn not cut up, should be gathered and cribbed. All the hemp not put out in October should now be spread for winter rotting; and that which was spread in October, if sufficiently watered, should be taken up and put in shocks before Christmas, so that the hemp-braker may have employment in all suitable weather during the winter. A stock of pine wood should be laid in to last at least a few weeks, so that there may be no necessity for the hands to be out in bad weather. During rainy weather, if corn shall have been gathered and put under a shelter, all hands may be engaged in shucking it out. Unless blue grass pastures have been kept in reserve for winter feeding, stock should now be fed with winter provender, and should be attended to with great care, to prevent them from falling off, not forgetting that salt is necessary for them in winter as well as summer, though a smaller quantity will answer.

In the States and Territories north of the Ohio, winter will have set in, in good earnest, and much attention should be given to their stock. If possible, their stock of all kinds should be so well kept as not to fall off in flesh. As these States and Territories raise but little hemp, there will be abundance of time for feeding and attending to their stock. During the early part of this month, every necessary preparation should be made for the economical feeding of stock, and rendering them as comfortable as possible, always recollecting that when stock are sheltered and kept warm, less food will keep them in good order.

As the winters are more severe in these States than in those farther south, and as January and February are generally very inclement, a stock of wood should be laid in, abundantly sufficient to last till some time in March—and even for a longer period, if practicable, as by having a good supply of feed ahead, the farmer will have more time in the spring to repair fences, and make the other necessary preparations for the ensuing crop.

A. Beatty.

Prospect Hill, Ky.

Ladies' Department.

FARMERS' WIVES.

Too much praise can scarcely be bestowed upon your fair correspondent, E. M. C., for her excellent and spirited article on the multifarious and never-ceasing employment of farmers' wives; and though

"I have not vanity enough to think
My praise is worth this drop of ink,"

yet I cannot forbear offering my congratulations to the whole sisterhood for having so able an advocate to undertake their cause.

If I knew her name, I would add it to my list of right-minded women, who take a proper view of things generally overlooked; who to precept add example, as doubtless she does,—being, as she so cleverly intimates, a farmer's wife. May she reap the highest reward which a mind like hers is capable of receiving—that of knowing that her suggestions have rescued *even one* of her hardly tasked countrywomen from being a mere household drudge, and raised her to the station she should fill by right as well as by nature—the *companion* of her husband and his friends; the participator in his plans and cares; and the cheerful as well as able instructress of his children. I am not a farmer's wife, and therefore cannot speak with all the wisdom gained by experience; but I know and love many who are, and have seen and thought much on the subject of the life of almost uninterrupted labor to which they are too generally exposed; and the little care bestowed upon their mental culture, or bodily comfort; and if I cannot name the individuals who sat for the speaking portraits by which she illustrates her position, I certainly know others of each separate class, who might have done so, and who could bear ample testimony to the truth of her statements. I can add little weight to the truth of her arguments in the cause she has so generously espoused; but I may perhaps be allowed to say something on a subject intimately connected with it.

Farming is a pursuit which tends to enlarge the mind, and I trust there are *few* who would wish to resist its enlightening influence—*none* so sordid as not to wish their children to be well educated; but I cannot shut my eyes to the fact that all are not willing to pay the price which would ensure its accomplishment; for next to having *female help* for the wife, no money is so grudgingly drawn from a farmer's purse as that to pay for what is called "schooling" for the children.

The mother, when at a late hour of the day she sits down to rest after the toils of the day, is too much wearied, both in mind and body, to be able to attend to the education of her children; happy if she is not called upon to minister at the bed of some suffering one, or the fatiguing, though eagerly sought endearments of "the baby." No time then for the cultivation of those mental graces which, learned at school, and practised with avidity in her hours of girlish leisure, perhaps attracted and won the man to whom all the energies of her future life are to be devoted. The prospect of the morrow's labors are enough to sadden her spirits, and crush every aspiration for their future intellectual improvement; and with a feeling near akin to that which induces the women of some heathen nations to smother their female children in their infancy, rather than suffer them to grow up to endure the trials through which they have lived, she feels that it would be a cruel kindness to cherish in her daughter tastes and habits which must be laid aside for ever, as soon as she takes upon herself the pleasures and cares of a family of her own.

It is a melancholy fact, that most of our country schools are miserably deficient in teachers capable of imparting a knowledge of anything above what the children of the poorest day laborer should be familiar with—the first rules of arithmetic, writing, and reading; and even for these they are too often but insufficiently compensated. The master may do his best, but as he cannot teach what he does not know, under such care the pupil's progress will necessarily be slow, even in children who love to learn; and this makes the parents feel less hesitation in keeping "Johnny at home a week or so, to pick up potatoes, top the corn, and pull the turnips; and Sally may as well stay too, to help mother prepare the poultry and butter for market, and mind baby;" the others are too little to go alone, and therefore they stay to add to the poor mother's cares and labor.

There is a plan which has been adopted with the most complete success in several instances where want of time, or deficiency in their own education, prevented the mothers from engaging in a task which, as it should be their chief delight, should never, except in cases of necessity, be delegated to another. Where such necessity actually exists, I propose as the best substitute, and *only as a substitute*, the adoption of the plan above alluded to; which is, that two or more near neighbors unite, and engage a governess for their little ones; by dividing the expense, they can better afford to offer a sum large enough to ensure the services of a woman of correct and firm religious and moral principles, *solid* mental endowments, and who to school love adds a love for and knowledge of country employments, housekeeping, and even of country amusements; in short, not a town-bred lady, who would start at sight of a snake or a frog, and scream at meeting a herd of cattle.

The school room should be light and airy; in the most central house, if more than two combine, and the governess herself should be accommodated, if practicable, in the house where the largest number of little ones would claim her care; and happy will that family have reason to be, who can secure such an inmate as the one who should be fit to undertake an office the most responsible that can devolve upon a human being—the care of children.

Very many young girls who are likely to be dependent on their own exertions, are at the present time educated with the express view of their becoming teachers, particularly in the Eastern States; consequently there will be less difficulty in procuring persons competent to the task assigned them; and I earnestly recommend to the serious consideration of all right-thinking farmers, an expedient which I know they will like the result of, even after a few months' fair trial of its effects. By such an arrangement their children remain under their own care and protection, and there is no risk of their getting contaminated by improper associations with others, which will be a great relief to an anxious parent's mind.

Eutawah. E. S.

Boys' Department.

THE SCHOOLMASTER AND SCHOOL.—The year has rolled round, the season of crops and their ingathering has passed away, and a new scene is to be acted, and you, my boys, are to be the actors. The first thing to be looked to and inquired about is whether the schoolmaster is abroad, and if so, what kind of a man he is? I don't ask as to his Christian or moral character; these, I take for granted, are all correct, for without these, no man is worthy of a seat in the gubernatorial chair; and with these, every man is not otherwise fitted for the office of teacher. In the first place, he ought to be "apt to teach." Something upon the subject of agriculture should be read every day, and a few minutes devoted to the comparison of things brought into the school for that purpose, showing, by demonstration, why some things are better than others, as well as that "some things can be done as well as others." Nor should this be all. He should, at proper times and on proper occasions, lead the way in your sports. It cannot be supposed that boys who have been hard at work on a farm for eight months, can sit down from six to eight hours' study every day, without causing a derangement in their physical frame. I am aware that you are up at five o'clock in the morning, and out at the barn, seeing to feeding the stock, cleaning the stables, and looking to everything in and about the barn, hog-pen, and hen-house, as well as the chores in and about the house, and all this too, over again, after school is out; but all this is not sufficient.

There are various plays in which you may engage under the eye of a master, which will give both pleasure to the mind and profit to the body. I need only name the kite and the ball, when the ground is hard and dry; the skates and hand-sled, when there is snow and ice: nor are you to take advantage of this apparent familiarity in your master; he needs the exercise and relaxation as well as yourselves, and ought to be entitled to your greater respect for this indulgence.

And now, one word about your studies. Think not that your duties end when you leave the school-house; but take your geography or history home with you, and commit your lessons for the next day in the evening. More may be done during four months' schooling in the winter, than is frequently accomplished in a whole year, where nothing more is required of a boy than to be regular in his hours of attendance at school.

A KICKING PLOW.—Well, boys, I want to tell you a story about plowing, which I heard a couple of old men talking over the other day, while looking at the beautiful implements of husbandry in the warehouse of the editor of the American Agriculturist.

Farmer A says to Farmer D, these are somewhat different plows from such as you and I used to plow with when we went to the woods and cut down a winding tree, and split out a mould board, and hewed off the splinters, and then nailed on the blade of an old hoe, straps of iron, sometimes an old worn-out horse-shoe, &c., &c., to keep it from wearing out. Yes, indeed, replies Farmer D, I well remember when I was about 16 years old (he is now upwards of 70), my father had a kicking plow.

Do you know what a kicking plow is, boys? Well, I will tell you. It was so constructed, that when the point of the share struck a stone or rock, of which we have plenty in my country, it would fly up behind, and the handles strike you under the chin, or sometimes the end of the mould board would bark you on the shin, making you cry out ah, or oh dear! which he set me at work with, and left home on a short journey. After getting a few thumps I began to philosophize, and pretty soon turned my oxen into the pasture, took a shovel and axe, went into the woods, dug up a small ash tree by the roots, to be sawed in two for handles, taking the next cut for the beam, and so on, until I had all the material for a new plow. By dinner time, next day, I had my plow ready for operation, and at it I went. It worked to a charm—for I had so balanced the parts that I had no more kicking. The moon shone the following evening, and I plowed on, fearing the consequences of not meeting the expectations of my father, in the quantity of land plowed on his return, which was on the third day. He came into the field immediately. "Well, David," said he, "you are turning it up pretty handsomely; but what have you there, my son?" I held down my head, and talked to the oxen. "Never mind," said he, "only be careful in turning about, for, if the oxen once get sight of your plow, it is *so handsome*, they will clear the field, and you may never see more of them!"

NECESSITY OF STUDYING CHEMISTRY.—I wish to explain to the boys the necessity of their studying this important science. Every plant that grows upon a farm has to be fed, as well as animals; and they require, or at least do better, upon particular kinds of food. When they have it, under favorable circumstances, they attain their most perfect growth. Now, how are we to find out what plants live upon, and what is their particular food? Some would at once answer, I would apply stable manure—that gives me good crops. Others would say, I would use guano, marl, lime, plaster, or I would plow under green crops, &c.; but all these modes have been tried unsuccessfully in some cases. Now, a chemist would at once ascertain the cause of the failure, and advise the best application of nourishment. He would analyze the soil, and would also analyze the plants that the farmer wished to grow. He would ascertain perhaps that there was everything requisite in the soil but lime, and that by the application of it, the land would at once be fitted to produce the crop required; or it might want potash, then ashes would be the remedy; or it might want azotised substances, and then he would recommend stable manure, &c.

Many would ask, how can a chemist do this? I answer, by analysis. Well, what is analysis? Analysis means the separation of substances so as to ascertain their composition. A chemist does this, by employing certain chemical manipulations and tests. He separates every substance that soils and plants contain. He detects and weighs them, so that every particle is accounted for, and their respective value ascertained. When this is known, the farmer is able to apply the substance required, and in that way he not only makes the proper application, but also oftentimes saves himself a great expense in purchasing manure which his farm does not require. Thus he makes money, while his neighbor loses.

FOREIGN AGRICULTURAL NEWS.

By the arrival of the steamship Britannia, we have our files of European journals to November 4th.

MARKETS.—*Ashes* no change. *Cotton* has further declined ⅛d per lb., and was extremely dull. Stock on hand at Liverpool, on the 1st of November, 923,000 bales, against 858,000 same period last year. *Beef* still on the advance. *Pork* at old prices and in good demand. *Lard* scarce and much wanted. *Cheese* the same. Both of these articles will doubtless fall upon larger arrivals. *Flour* had advanced again, and speculation in it was very brisk. *Turpentine*, owing to speculators, a great advance. *Rice* in good demand. *Tallow* dull. *Tobacco* was firm, although a large stock on hand. *Wool*, considerable sales of United States growth at fair prices.

Money is less easy, and the rate of interest is advanced by the Bank of England to 3 per cent.

The Weather for the last few days had been fine, and the residue of the oat and other late grain harvest in the north well secured.

Amount of Inorganic Matter removed from the Soil by a Crop of Wheat.—This has been ascertained by Mr. W. Sharp, after a series of careful experiments, to be about one pound per acre.

Potatoe Rot.—This alarming disease was still spreading, and proves most disastrous in Ireland; three-fourths of the crop is supposed to be destroyed in that country. In England and on the continent its ravages seem to be somewhat stayed. The British government, some little time since, appointed Professors Kane, Playfair, and Lindley, to proceed to Ireland on a commission of inquiry respecting the rot. The following is the substance of their first report on this important subject:—

In the present communication we avoid entering into any account of the origin or nature of the disease; but we would particularly direct attention to the ascertained facts, that moisture hastens its progress, and that it is capable of being communicated to healthy potatoes when they are in contact with such as are already tainted. A knowledge of these facts determined, as they have been, by experiment, and agreeing with the scientific information obtained as to the causes and nature of the disease, leads us to propose the adoption of the following plan for diminishing the evils arising from the destructive malady:—

In the event of a continuance of dry weather, and in soils tolerably dry, we recommend that the potatoes should be allowed, for the present, to remain in the land; but if wet weather intervene, or if the soil be naturally wet, we consider that they should be removed from the ground without delay.

When the potatoes are dug out of the ground, we are decidedly of opinion that they should not be pitted in the usual way, as the circumstances under which potatoes are placed in ordinary pits are precisely those which tend to hasten their decay.

We recommend that potatoes when dug should be spread over the field, and not collected into heaps, and if the weather continue dry and free from frost, that they should be allowed to lie upon the field for a period of time not exceeding ten days.

The potatoes, after being thus dried and improved in their power of resisting disease by the means proposed, should then be sorted, by carefully separating those which show any tendency to decay. Those potatoes which appear to be sound should then be placed about 2 inches apart in a layer, and over each layer of potatoes should be placed a layer of turf ashes, or dry turf mould, or dry sand, or burned clay, to the depth of a few inches. Thus will be formed a bed of potatoes, each potatoe being completely separated from the other by a dry absorptive material; upon this bed, another layer of potatoes should be spread in like manner, and be also covered with the dry materials employed; as many as four layers may thus be placed one above the other, and when the heap is completed, it should be covered with dry clay, straw, heath, or any other material adapted to protect it from rain.

In the event of the weather becoming wet these recommendations are not applicable. In that case we would advise the potatoes to be packed in small heaps, with either straw or heath interposed, and well covered; in such a situation they would become as well dried as seems practicable under the circumstances. Where outbuildings exist, it would be advisable that this mode of temporary packing should be carried on in those places. If there be no outhouses the heaps may be left in the open field. We, however, particularly recommend that potatoes should not be removed into inhabited rooms.

With regard to the treatment of potatoes already attacked with the disease, we have to state that in this early stage of our investigation we do not feel justified in proposing any mode of positive treatment—this subject we reserve for a future report; but we may remark that exposure to light and dryness in all cases retards the progress of alterations, such as the disease in question, and we therefore suggest that all such potatoes should, as far as possible, be so treated.

We do not mean to represent that these recommendations, if carried into effect, will prevent the occurrence of disease in potatoes, but we feel assured that the decay will extend less rapidly and less extensively under these circumstances than if the potatoes, when taken from the ground, be at once pitted in the usual manner. Neither do we offer these suggestions as a final means of securing the crop, but merely as a method of retarding the progress of an enemy whose history and habits are yet but imperfectly known, whilst we endeavor to ascertain the means of more completely counteracting its injurious effects, if any such can be discovered.

Farming in China.—The horses that are used in this part of the world are a small hardy race; they are never shod, and the length of their hoofs may, in many instances which I have seen, almost vie with the finger-nails of their mandarin possessors; in fact, many of them are lame and almost useless from neglect, and, being generally overloaded with fat, they roll themselves about like so many Smithfield bullocks.

Although their agricultural affairs are carried on under the most simple and original system, they manage to obtain from the land a most extraordinary quantity of provision of one sort or another, the usual number of crops which the ground produces being three in the course of the year. The only implement which I saw used was a small light plow, which a man could carry about with him on his shoulder, and which is drawn by one cow or buffalo: the rest of the operations are performed by hand, such as sowing, raking, and other minor employments.

There are no public roads through any part of the country, excepting footpaths, the people usually travelling either according to that primitive method, or by the numerous canals which intersect the whole face of the empire; consequently there are no public conveyances, excepting for despatches; these are carried on horses, which perform, as you may have seen in the account of the Expedition, about six hundred *le* per day, which is equal to about a hundred and eighty miles. The horses are kept at stations, at intervals of about ten miles, where the courier, who usually performs the whole distance, is in the habit of changing his horse as required. The mandarins perform their journeys in sedan-chairs, sending on relays of men for the purpose of carrying them by easy stages through the country from one place to another.—*Sporting Mag*

A Beautiful Altenbürger Peasant Girl.—Our informant told us of a *millionaire* peasant, whose only daughter had *alle mögliche stunden*, "all possible lessons." I asked whether she continued to assist in the work of the farm. He said, "She does not do the field work, nor feed the cattle (two ordinary employments of the female peasantry), but *natürlich*, she looks after the cows, and helps to make the butter, and so on." Happy, happy people, who can share in the progress, and even the refinements and luxuries of other classes, without a desire to quit their own! It is *that* desire, and not a taste for the comforts, or even the elegancies of life, which makes society sick and restless, and leads every man to regard his own position with envy and discontent. We have seen the young ladies who scorned the cows, and aspired to pass the magic but indefinable line which separates the farmers from the "country families" in English provincial life. But here—fortunately for the *bauernstand*, and most unfortunately for the *adel* (nobility and gentry), that line is far too accurately and inflexibly defined to yield to the assault of beauty, wealth, and "accomplishments" united. In the sphere in which she is born, the *bauernmädchen* will marry and will die. And why, I pray you, might not a girl born under so benign a star as to have a healthful, active employment, and a determined sphere of duty, combined with all the leisure and opportunity that wealth and retirement can give, why might she not read Plato, or study Newton, if her taste led her so high—or pour out the abundance of her young soul in music or painting? Are we never to get beyond the age of pedants and dilettanti?—of blue stockings and "exceptional" women, who look down on the useful occupations of life, and scorn duties they have neither sense to appreciate nor virtue to fulfil? These are the monstrosities which grow out of a normal condition of ignorance and futility, and will disappear with that. At present, the whole current of prejudice is so strong against such a combination of the useful and the elegant, the simple and the luxurious, that there is little chance of one young woman in such a position failing to be spoiled for both characters; but there is no substantial reason why she should not be as simply earnest about her work as one of Homer's princesses, and yet give her leisure to noble and refined pursuits.—*Athenæum.*

To Stop the Rot in Potatoes.—Knowing the antiseptic qualities of chloride of lime, it struck me that it might prove efficacious in stopping the disease. I had a good-sized washing-tub half filled with water, to which I added half a pint of the chloride—and this mixture may be used again and again, and as many potatoes put in as the water would cover, and left in for 24 hours at least; they were taken out much hardened and whitened, and with an appearance most promising as to the probability of their untainted parts still keeping sound. Time, however, must prove this; I have no doubt that the disease is effectually checked by it. There is an earthy taste imparted by the process to the potato, but it is no greater than that often found in kidneys, and it may go off in the course of a little time.—*Ag. Gazette.*

How to know whether Grain will Vegetate.—There is one method that has been pointed out by the Highland Society, by which any person may satisfy himself concerning the sufficiency or insufficiency of the grain that he wishes to use for seed—that is, by making trials of small quantities of it in a warm exposure or in flower-pots, a considerable time before the season of sowing, numbering the grains employed in the experiment, and examining how many of them produce healthy plants. This method, if the experiment is properly conducted, must be deemed infallible for the purpose in view, and may very properly be employed by any person to ascertain the quality of the grain that he has in his own possession.—*Ib.*

Lime Enriches the Fathers, but Impoverishes the Sons.—The addition of lime to the land has, in nearly all well cultivated countries, extensively prevailed at every period of authentic history. In Europe its use has been universal, and everywhere the same observation has been commonly made, and has become a proverb in almost every language. "Lime," the proverb says, "enriches the fathers, but impoverishes the sons." Laid on in repeated doses, and for a length of time, the luxuriant crops it raises at first gradually fall off, till at length, even with the stimulus, as it is called, of larger doses, the land refuses to be excited. A like result has been observed of late years from the application of gypsum, of nitrate of soda, of common salt, or of saltpetre. Their good effects were apparent for a certain number of years, but they gradually ceased to act, and the land was afterwards believed to be even weaker and less productive than before. How are these results to be explained? Can this apparent exhaustion be prevented? Can it easily be remedied? Is it a necessary consequence of the use of lime, and of the other substances we have mentioned? Is the manure or the farmer to blame for the result? The plant carries away from the soil say ten substances. The soil is deficient in one of these, and the plant cannot grow. That one is lime or soda. You add it to the land, and your crops spring up luxuriantly. Rejoiced at this result, you add more lime, and your crops still grow well—for it requires the addition of 300 or 400 bushels to an imperial acre to add one per cent. of lime to a soil which is 12 inches in depth. But after many crops the lime at length ceases to benefit the land, the crops are even smaller than they were before lime was first added, and the farmer is at a dead stand. Now what has he been doing all this time? He has been adding one thing only in his lime—he has been carrying off TEN in his crops. Is it any wonder, then, that after a lapse of years, the land should become poor in one or more of the other nine? The iron-smelter throws into his furnace his ore and his coal, but he gets no metal until he puts in lime also. He adds a dose of lime, and he draws off a running of metal. He adds more lime, and he procures perhaps more iron. But he very soon finds that lime does no further good; he has melted out all the iron; he has exhausted his furnace; the stimulus of lime has no effect. He must add ore and coal again, and again he will obtain his periodical flows of metal. So it is with the soil. The farmer who hopes by the continual addition of one thing, to make his land produce continual good crops, hopes and acts against reason. It is his fault that the land has become exhausted, and the cure is in his own hands. Lime, therefore, does not necessarily "impoverish the son." But any treatment will ultimately make the land poorer which does not return to the soil all the things which the crops have carried off, and at least in equal proportion.—*Ib.*

Horticultural Expedition to California.—We are happy to announce the departure of Mr. Hartweg on a new expedition, on behalf of the Horticultural Society. Upon the present occasion the ground to be investigated is California, the riches of which were scarcely touched by Mr. Douglas. It is a country abounding in handsome annuals and perennials, beautiful bushes, and noble trees, all of which will be hardy enough to bear the climate of England. The expedition is to last three years, and the experience which Mr. Hartweg possesses of Spanish America, together with his zeal and activity, and the ample protection which has been extended to him by Her Majesty's Government, authorize us to congratulate the Fellows of the Society beforehand upon the valuable plants which they may expect to obtain through his means.—*Gar. Chron*

Editor's Table.

RAMBOUILLET SHEEP.—We spoke in a little note in our last number, of having sold the entire flock of these sheep belonging to Mr. Collins, of Connecticut, to Mr. L. G. Bingham, of Vermont, and that we intended to notice them when they passed through this city, as we thought they might deserve. Two years ago last June, we inspected these Rambouillets, and found them superior to anything we had before seen in the United States. Since this we have looked over a good many other Merino flocks, embracing some of the finest native bred animals in the country; and with these fresh in our minds, we aver upon this second examination of Mr. Collins' importation, that we know no other sheep equal to them for fineness, softness, felting qualities, evenness, closeness, and weight of fleece, coupled with great size of carcase, style, and an indefinable air of high breeding. They are also thrifty, hardy, and of excellent constitution. We should judge them generally to be from one-tenth to one-fifth larger in size than the average of good Merino sheep. Some of their fleeces are almost as fine as the finest Saxon, and none are of an inferior quality; they are also remarkably *free from gum;* and yet the fibres of the fleece are so fine and close together, as to render it almost impervious to the severest storms. Instead of the very objectionable *gum*, their wool is well supplied with *yolk*, equally diffused, and imparting to the fleece on opening it, a rich, bright golden color. This, when washed in tepid water, unlike gum, is easily cleansed out (being nothing but a pure animal soap), leaving the wool soft, and of a most beautiful clear white.

These sheep will make an excellent cross on the Merino flocks of Vermont, and we recommend them to the attention of the breeders in that quarter. They are a most valuable importation, and Mr. Collins deserves the thanks of the country for his spirit and liberality in making it. They are pure Merinos, bred in the Royal flock at Rambouillet, one of the best probably in Europe. The originals of these superb animals, by permission of the king, were chosen from the best flocks in Spain, about 60 years ago, and have since been bred by the French government with the greatest care.

TRAVELS IN NORTH AMERICA IN THE YEARS 1841-2; with Geological Observations on the United States, Canada, and Nova Scotia. By Charles Lyell. In two volumes, with colored maps and engravings. Wiley & Putnam, 161 Broadway. Price $1.75. We may congratulate America upon the great change which has latterly taken place in the race of travellers who come among us, and see fit to publish their notes upon this country. Foremost among these eminent and candid foreigners, stands the author of this work. Mr. Lyell has an enlarged and unprejudiced mind, and takes a fair view of things, morally and philosophically. His scientific notes are of great value, and make us rather proud of our country. He thinks America, geologically, much older than Europe, so that we may now, with some show of reason, change the titles of the new and old world with her. We heartily commend this work of Mr. Lyell's to our readers, and assure them that its perusal will be an intellectual treat. When he finds fault, he generally does it with the candor of a liberal and enlightened mind; and such things as deserve praise he speaks of with apparent pleasure.

FINE WOOL.—We have received very beautiful samples of Saxony wool from the flock of Mr. Nathan Linton, of Lebanon, Ohio. We understand that Mr. L. is breeding his animals with great care, and that he has lately procured a buck from the celebrated flock of the late H. D. Grove, of this State, with a view of making a fresh cross upon it.

ESSAY ON GUANO. By J. E. Teschemacher. We are indebted to Saxton & Kelt, of Boston, and Saxton & Huntington, of this city, for copies of this pamphlet of 51 pages. It is an excellent work, by one who has paid great attention to the subject. The account of experiments given in it of the guano are such as were made in this country, which renders the pamphlet much more valuable for Americans. For sale by Saxton & Miles, 205 Broadway.

STOCK FOR THE SOUTH.—Mr. Vail, of Troy, recently shipped a superb bull calf, about three months old, to Col. Wade Hampton, of Columbia, South Carolina. It was got by his imported Wellington, out of imported Lady Barrington, both of which animals are from the celebrated herd of Mr. Bates, of Yorkshire, England. The above calf is a beautiful red color, of fine points, and shows high breeding. The price paid for him is $300. Wellington has now gone to Black Rock, to serve a year in the fine herd of Mr. L. F. Allen, of that place. Mr. A. used Symmetry last year, since sold by Mr. Vail, to Col. Sherwood, of Auburn, for $300. These are prices such as no other man in the State has obtained; and however the committees of Agricultural Societies may decide, good breeders will exercise their own judgments in regard to selecting their stock, and paying such prices as they think proper. We congratulate these gentlemen on their purchases. The calf was selected for Col. Hampton, by A. G. Summer, Esq., of Columbia, S. C., when on here last fall, he being a capital judge of stock. Quite a lot of fine Cotswold sheep, from Mr. Sotham's flock, went out to South Carolina at the same time with the Lady Barrington calf. These were designed for Messrs. Hampton, Summer, and others. Quite a movement has been made in sheep this year, South and West. We have shipped to a considerable number of gentlemen there, and have several more orders to fill. Dr. Robert R. Reed, of Washington, Pennsylvania, has been on here purchasing a fine lot of Saxons. Mr. Beach, also, of Ohio, has ordered of the Grove flock through us. We have letters from Mr. Taintor, of Connecticut, now travelling in Germany, stating that he shall consign to us, early in the spring, a lot of superb Saxons, for Mr. Samuel C. Scoville, of Salisbury, Ct. These facts indicate that stock matters are looking up again. We have no doubt that breeders of choice animals will hereafter obtain fair prices for all they may have to sell for several years. Mr. Sotham has sold his superb cart-horses to the Messrs. Eaton, of Columbus, Ohio; and to others quite a number of Hereford cattle, and Cotswold sheep.

COTTON, FROM THE POD TO THE FACTORY.—This is an admirable little work, price 12½ cents, containing the history, gathering, marketing, and manufacturing of the great staple of the South.

GREAT CORN CROP.—Mr. Paschall Morris, of Allerton Farm, near Westchester, Pa., raised a crop of ten acres of corn the past season, averaging *one hundred and one bushels and three pecks* per acre. This crop was awarded the first premium by the Chester and Delaware County Agricultural Society. It was measured by Messrs. John North, Jr., and James Painter, the committee appointed for that purpose. The committee say that a part of the field yielded at the rate of 110 bushels per acre.

TO CORRESPONDENTS.—Agricola, Henry J. Canfield, Wm. Leavenworth, Querk, and E. S. are received. The article on Herefords, by Mr. Stevens, being rather a long one and to be followed by others, we let it lie over till January, so as to have the series complete in Vol. V. The first, in the September No., was merely prefatory.

REVIEW OF THE MARKET.

PRICES CURRENT IN NEW YORK, NOVEMBER 26, 1845.

ASHES, Pots,	per 100 lbs.	$3 87½	to	$3 94
Pearls,	do.	4 12½	"	4 19
BALE ROPE,	lb.	5	"	7
BARK, Quercitron,	ton,	26 00	"	24 50
BEANS, White,	bush.	1 12	"	1 25
BEESWAX, Am. Yellow,	lb.	28	"	33
BOLT ROPE,	do.	12	"	13
BONES, ground,	bush.	40	"	55
BRISTLES, American,	lb.	25	"	65
BUTTER, Table,	do.	16	"	25
Shipping,	do.	9	"	13
CANDLES, Mould, Tallow,	do.	9	"	11
Sperm,	do.	25	"	38
Stearine,	do.	20	"	25
CHEESE,	do.	5	"	10
COAL, Anthracite,	2000 lbs.	5 00	"	6 00
CORDAGE, American,	lb.	11	"	12
COTTON,	do.	6	"	10
COTTON BAGGING, Amer. hemp,	yard,	13	"	14
Kentucky	do.	12	"	13
FEATHERS,	lb.	26	"	34
FLAX, American,	do.	7	"	8
FLOUR, Northern and Western,	bbl.	6 37	"	6 87
Fancy,	do.	7 00	"	7 62
Southern,	do.	6 37	"	6 87
Richmond City Mills,	do.	7 25	"	7 75
Rye,	do.	4 37	"	4 50
GRAIN—Wheat, Western,	bush.	1 40	"	1 50
Southern,	do.	1 35	"	1 45
Rye,	do.	83	"	85
Corn, Northern,	do.	82	"	85
Southern,	do.	80	"	81
Barley,	do.	67	"	69
Oats, Northern,	do.	52	"	53
Southern,	do.	46	"	48
GUANO,	100 lbs.	2 25	"	3 00
HAY, in bales,	do.	75	"	85
HEMP, Russia, clean,	ton,	187 00	"	190 00
American, water-rotted,	do.	105 00	"	185 00
American, dew-rotted,	do.	75 00	"	125 00
HIDES, Dry Southern,	lb.	9	"	11
HOPS,	lb.	32	"	35
HORNS,	100	1 00	"	7 00
LEAD,	lb.	4 75	"	4 88
Sheet and bar	do.	4½	"	5½
MEAL, Corn,	bbl.	3 87	"	4 12
Corn,	hhd.	15 00	"	15 25
MOLASSES, New Orleans,	gal.	23	"	27
MUSTARD, American,	lb.	16	"	31
NAVAL STORES—Tar,	bbl.	1 87	"	2 00
Pitch,	do	1 25	"	1 38
Rosin	do.	1 80	"	1 13
Turpentine,	do.	3 50	"	4 25
Spirits Turpentine, Southern,	gal.	63	"	75
OIL, Linseed, American,	do.	67	"	68
Castor,	do.	57	"	68
Lard,	do.	70	"	75
OIL CAKE,	100 lbs.	1 00	"	1 50
PEAS, Field,	bush.	1 50	"	2 00
PLASTER OF PARIS,	ton,	2 50	"	2 62
Ground, in bbls.,	of 300 lbs.	1 12	"	1 25
PROVISIONS—Beef, Mess,	bbl.	7 00	"	9 00
Prime,	do.	4 50	"	5 50
Smoked,	lb.	6	"	9
Rounds, in pickle,	do.	4	"	6
Pork, Mess,	bbl.	12 00	"	14 12
Prime,	do.	9 00	"	11 00
Lard,	lb.	8	"	8½
Bacon sides, Smoked,	do.	3	"	4
In pickle,	do.	3	"	4
Hams, Smoked,	do.	6	"	10
Pickled,	do.	4	"	7
Shoulders, Smoked,	do.	5	"	6½
Pickled,	do.	4½	"	5
RICE,	100 lbs.	4 75	"	5 50
SALT,	sack,	1 35	"	1 40
Common,	bush.	20	"	35
SEEDS—Clover,	lb.	10	"	11
Timothy,	7 bush.	14 50	"	21 00
Flax, rough,	do.	10 00	"	10 13
clean,	do.	11 00	"	11 12
SODA, Ash, cont'g 80 per cent. soda,	lb.	3	"	3
Sulphate Soda, ground,	do.	1	"	—
SUGAR, New Orleans,	do.	5	"	8
SUMAC, American,	ton,	35 00	"	37 50
TALLOW,	lb.	7	"	8
TOBACCO	do.	3	"	7
WHISKEY, American,	gal.	20	"	29
WOOL, Saxony,	lb.	35	"	50
Merino,	do.	30	"	35
Half-blood,	do.	25	"	30
Common,	do.	20	"	32

NEW YORK CATTLE MARKET—Nov. 24.

At Market, 1397 Beef Cattle, 55 Cows and Calves, and ½500 Sheep and Lambs.

PRICES.—Beef Cattle were in demand at last week's rates, which we renew. We give $4.50a$6, to include all qualities.

COWS AND CALVES.—All sold at $18a$30.

SHEEP AND LAMBS.—The former we quote at $1 25a$3.50, and the latter, at 75a$2.25. Left over, 200.

HAY—Is quick at $20a$33 per ton for loose.

REMARKS.—*Ashes* slow of sale. *Cotton* is much depressed, and a decline of fully ¼ of a cent. Export from the United States since 1st September last, 184,458 bales; same time last year, 203,485; same time year before, 89,425. *Flour.* In this article there has been great excitement since the arrival of the Britannia, and prices went up as high as $7.00 to $7.25, for common brands. It has now fallen fully five shillings per barrel, from this high price, with a steady demand. We are confident, however, that these prices cannot be maintained, as shipments to Europe will be attended with a heavy loss. It is a great misfortune for the American market to be so excited. We advise the farmers to sell now as rapidly as possible, and be sure and *get their pay*, for these prices will not last long. The arrivals for the past month have been very large. *Corn Meal* is scarce. *Wheat* a slight downward tendency, as well as all other kinds of grain. *Molasses* in good request. *Naval Stores* in active demand, at a considerable advance. *Provisions* generally little doing. *Rice* brisk. *Sugar* dull. In other articles, little worthy of comment.

Money remains plenty, from 5½ to 7 per cent.

Stocks.—Steady, with few transactions.

The Weather generally has been very pleasant and mild the past month. Indeed, we think the past one of the most delightful Autumns we ever knew. The Fall feed is good, and much of the stock in this vicinity still get their living from the pastures.

The Crops.—Nothing new remains but sugar and cotton, and from them we hear good accounts. We congratulate the husbandman on the prosperous close of the year, and, notwithstanding the drouth, we have reason to be thankful to Providence for an average abundance of crops.

TRANSACTIONS OF THE N. Y. STATE AG. SOCIETY. Just as our paper was made up for the press, we received a proof sheet in advance of publication of the December No. of the Cultivator, in answer to the article in our last signed, "A Member." As it was accompanied with a threat and demand, we shall not insert it till these are withdrawn. We said under the first article, of "A Member," that our columns were open to a reply; but these are now effectually closed by the attitude that the editor of the Cultivator has most unwisely, in our opinion, seen fit to assume.

☞ TO SUBSCRIBERS.—We shall send the January No. for 1846, to all present subscribers. Such as do not wish the paper continued, will please return the No. immediately, with the name and Post-Office address, when it will be stopped. Such as do not *immediately return the* No. *unmutilated*, we shall consider as subscribers to the fifth volume. We wish expressly, that no remittances be made by Post Office drafts. Subscribers will please enclose the amount of subscription direct to the publishers.

PRAIRIE FARMER.

Volume VI., 1846. Published monthly, at *Chicago, Ill.*, at $1 per annum, in advance. Containing THIRTY-TWO large octavo pages, besides a cover, on which advertisements, &c., are inserted. The matter being chiefly original, and supplied by practical correspondents from all parts of the West, Eastern readers will not find much copied from other agricultural papers; and at the same time it furnishes more information concerning the West than can be obtained from any other source. Printed in good style, and embellished with engravings.

Subscriptions will be received by Saxton & Miles, 205 Broadway, New York, from those to whom it will be more convenient than to order it by mail.

PERUVIAN GUANO.

Any quantity of this excellent fertilizer on hand, for sale at the following prices:

100 bags or more,	2¼	cents per lb.
Over 50 and under 100 bags	2½	do.
Over 10 and under 50 do.	2¾	do.
Less than 10 do.	3	do.

The bags average about 150 lbs. each.

A. B. ALLEN, 187 Water Street.

MAGNOLIAS FOR SALE.

Nurserymen and Gardeners, by making immediate application to A. B. ALLEN, at the New York Agricultural Warehouse, No. 187 Water street, can be furnished early next spring with trees of the Magnolia Macryphila and Grandiflora, at $50 per thousand. They will be carefully packed in boxes containing 500 or 1000 each, and will be forwarded from the South by the way of the Ohio river, as early as navigation opens, and delivered in the original packages, in good order, to purchasers.

SOLON ROBINSON, Agent for the Owner.

October, 1845.

AGRICULTURAL WAREHOUSE.

The Subscriber keeps constantly on hand the best and most complete assortment of Agricultural Implements, Field Seeds, and Fertilizers, to be found in the city. A few of the articles he enumerates below, viz. :—

Plows.—Cotton, Rice, and Sugar Plows,.....$2.00 to 4.50

Some of these plows are made expressly for light sandy soils, others for a loam or stiff clay, which they work in a most superior manner.

One-horse Plows for the North, with single and double mould boards. These last are admirable to work in between the rows of root crops and corn, when not over 3½ feet apart, as they turn the furrow both ways to the crop at once, thus doing double the work of a single mould board,.....3.00 to 5.00

Rice Trenching Plow. This does the same work as the hands perform on a rice plantation with trenching hoes, and equally as well, and with five times the rapidity that a negro can work. No rice planter should be without them,.....6.00 to 6.50

Two and Four-horse Plows, of different sizes, and for all kinds of soil—stony, sandy, loam, or clay; also for stubble and sward land. Some of these have crane-clevies attached to them, thus enabling the off horse in plowing a wet meadow, to walk on the solid sward, instead of a miry fresh plowed furrow. Others are adapted to trench plowing, enabling the farmer to turn up virgin earth in a deep soil. These plows are strong enough to grub up bushes with their roots, heavy bogs, &c. They likewise answer for partial ditching,.....5.00 to 20.00

Paring Plows for shaving off the turf preparatory to burning,..... 15.00

Harrows. A complete assortment of square, triangle, and double triangle folding harrows, with wrought iron or steel-pointed teeth. The last are very superior,.....6.00 to 16.00

Rollers of various kinds, wood, stone, or iron, single or double, and to move by hand or horse power,.....16.00 to 65.00

Cultivators, hand or horse, of various patterns,.....3.00 to 8.00

Horse Powers. Endless chain single horse,.....85.00

" do. two-horse,.....110.00

" Cast-iron, single or two-horse,.....50 to 60.00

" do. four-horse,.....95.00

Grain Threshers.....$25.00 to 40.00. Beaters,..20.00 to 25.00

Threshers, with Separators,.....35.00 to 50.00

Clover Mills,.....30.00 to 65.00

Fanning Mills,.....12.00 to 27.00

Burr Stone Mills, for grinding grain,.....30.00 to 125.00

Cast-Iron Mills, a new and most admirable invention. They work either by hand or other power, and are well adapted for grinding all kinds of grain, except flouring wheat for market,..7.00 to 15.00

Corn and Cob Crushers, for grinding cob in the ear,30.00 to 35.00

Sugar Crushers,.....7.50 to 20.00

Paint Mills of various patterns,.....7.00 to 17.00

Corn Shellers and Huskers. Will shell from 100 to 200 bushels of ears per hour, in the best manner. These work by horse or other power,.....25.00 to 50.00

The same worked by hand, made of wood or cast iron,..... 7.00 to 10.00

Vegetable Cutters, for slicing up potatoes, beets, turnips, &c..... 8.50 to 12.00

Straw Cutters. Common hand kind,.....3.00 to 8.00

" Hovey's, with spiral blades,.....10.00 to 30.00

" Stevens' do. cut from 1 inch to 1¼ in. long,.10.00 to 15.00

Corn Stalk Cutters, Thorn's, Sinclair's and others,25.00 to 45.00

Cotton Gins of various patterns,.....25.00 to 150.00

Ox, Road, or Dirt Scrapers,.....4.50 to 5.00

Self-Acting Cheese Press, a neat and very superior and simple article 6.50

Seed Sowers, various patterns,.....10.00 to 16.00

Horticultural Tool Chests, complete,.....18.00

Wheel-Barrows for Gardens,.....4.50

Common ditto,.....2.25 to 3.50

Tree or Bush Pullers. $3.00 to 5.00; Garden Syringes, 3.00 to 3.50; Grain Cradles, 3.00 to 3.50; Sausage Stuffers, 4.50 to 5.00; Lactometers, 2.50; Bee Hives, 3.25; Ox Yokes and Bows, 2.50 to 5.00; Manure Forks, 63 cents to 4.00; Hay ditto, 50 cents to 1.00; Grain and Grass Scythes, 75 cents to 1.00; Swingle Trees, 1.00 to 3.50; Hay and Straw Knives, 1.00 to 2.00; Axes, Collins', Hunts' and Simons', handled, 1.00 to 1.50; Grubbing Hoes, 50 cts to 1.00; Picks, 1.00 to 2.00; Trace Chains, 75 cts. to 1.00; Budding ditto, 1.13; Ox chains, American 12½ cents per lb., English ditto, 9 cts; Shovels, 75 cts. to 1.50; Spades, ditto, ditto; Tree Scrapers, 31 to 75 cents; Schuffling Hoes, 25 cts. to 1.00; Garden Syringes, 3.00 to 3.50; Churns, various patterns, 2.00 to 4.00; Grafting chisels and saw, handled, 2.00; Hoes, all patterns, 25 to 63 cts.; Potato hooks, 50 cts. to 1.50; Ditto Forks, 1.37 to 2.00; Garden Reels, 75 cts.; Sickles, 37 to 63 cts; Straw Knives, 1.00 to 1.25; Grass Shears, 1.25 to 1.50; Twig Cutters, 50 cts. to 2.00; Vine Scissors, 63 cts.; Pruning Shears, 2.00; Screw Wrenches, 1.50 to 2.00; Sheep Shears, 75 cts. to 1.25; Strawberry Forks, 37 cts.; Scythe Rifles, Rakes, various patterns and various prices; Peat Knives 1.50; Ox Muzzles, 31 to 50 cts. per pair; Ox Bows, 31 to 50 cts.; Hatchets, 50 to 75 cts.; Horse Brushes, Hammers, Axe Handles, Horse Rockets, Grindstones, Rollers, Crank and Shafts, Flower Gatherers, Flails, Edging Knives, Cattle Tie-chains, Bull Rings, Butter Boxes, Bush Hooks, Caterpillar Brushes, Fleams, Scoops, Ox Balls, Post Spoons, Garden Trowels, Spinning-wheel Heads, Well Wheels, Oven Mouths, Budding Knives, Pruning ditto.

Castings of all the patterns for New York and Peekskill Plows, at 4 cents per lb.

Worcester ditto, 6 cents.

Seeds of the various kinds, for the field only; such as Wheat, Rye, Oats, Barley, Corn, Beans, Peas, and Grass Seeds, Potatoes, Beets, Carrots, and Parsnips. No garden seeds are kept.

Fertilizers, such as Guano, Poudrette, Lime, Plaster, Bones.

Agricultural Books, a complete assortment.

A liberal discount made to dealers.

A. B. ALLEN, 187 Water Street, N. Y.

THE AMERICAN AGRICULTURIST.

TERMS—One Dollar per year in advance; single numbers, Ten Cents; three copies for Two Dollars.

Published Monthly, by Saxton & Miles, 205 Broadway, New York, containing 32 pages, royal octavo.

Each number of the Agriculturist contains but One sheet, and is transported by mail under the same regulations as newspapers, viz.: *free* any distance not over 30 miles from its place of publication; over this and within 100 miles, or to any town in the State of New York, *one cent* postage on each number, and *one and a half cents* if over 100 miles, without the State.

It is so much trouble to get a post office order paid, and it requires so much formality, that subscribers will please hereafter remit all moneys directly to Saxton and Miles, at their risk and expense; taking care, if possible, that the package does not exceed the weight of a half ounce, thus subjecting them to single postage only. Agents also will please bear this in mind.

Editors of newspapers noticing the numbers of this work monthly, or advertising it, will be furnished a copy gratis, upon sending such notice to this office.

Volumes I., II. and III. of The American Agriculturist, with tables of contents complete, for sale at $1.00 each; elegantly and uniformly bound in cloth, $1.25. These are handsome, tasteful books, and make very desirable premiums for distribution with Agricultural Societies, and should also find place in all our District School Libraries. They constitute the best and most complete treatise on American farming, stock-breeding, and horticulture, extant. When several copies are ordered, a liberal discount will be made.

LIVE HEDGES.

50,000 Maclura, or Osage Orange, for sale by the subscribers,

D. LANDRETH & FULTON,
Nurserymen, Philadelphia.

GRANT'S PATENT FAN-MILL RIGHTS FOR SALE.

The subscriber offers to sell the Patent-right of his Improved Fan Mill, to counties where the right is not already disposed of. The letters patent are dated July 10th, 1845. Letters addressed to L. T. Grant, at the junction P. O., Rensselaer Co., New York, post paid, where the Mills are manufactured, will receive immediate attention. They may be seen at the Agricultural Warehouse of A. B. Allen, 187 Water street, New York.

PERUVIAN GUANO.

Just received from the Peruvian Guano Company, warranted pure and of best quality. Price in bags, for any quantity not *less* than ten tons, $50 per ton, of 2,240 lbs.

EDWIN BARTLETT.
Nov. 1st. 42 South street.

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